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NOTES ON THE LIGNEOUS PLANTS DESCRIBED
BY LÉVEILLÉ FROM EASTERN ASIA¹

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ROSACEAE

Neillia sinensis Oliv. f. *glanduligera* (Hemsl.), f. nova.

Neillia sinensis Oliv. var. *glanduligera* (Hemsley in herb.

Neillia glandulocalyx Léveillé, Fl. Kouy-Tchéou, 348 (1915).

A typo differt tubo calycis glandulis longe setoso-stipitatis instructo.

CHINA. H u p e h: without precise locality, *A. Henry*, no. 5554a (type of *N. sinensis* var. *glanduligera*). K w e i c h o u: route de Pin-fa à Tou-yun, *J. Cavalerie*, no. 2461, July 1905 (holotype of *N. glandulocalyx*; merotype in A. A.).

This form seems almost as common as the typical form with glabrous calyx and the following specimens are referable to it: S h e n s i: "monte Thae-pei-san," *J. Giraldi*, July 20, 1897; H u p e h: without special locality, *E. H. Wilson*, Veitch Exp. no. 701 in part; (fruiting branch only); Ichang, *E. H. Wilson*, Arnold Arb. Exp. no. 86 in part (fruiting branches only); Hsing-shan hsien, *E. H. Wilson*, no. 189; H u n a n: in monte Yun-schan prope urbem Wukang, *H. Handel-Mazzetti*, no. 12010.

Spiraea media Schmidt var. *monbetsusensis* (Franch.) Cardot apud Nakai in Tokyo Bot. Mag. XLII. 464 (1928).

Spiraea Fauriei Léveillé in Fedde, Rep. Spec. Nov. VIII. 281 (1910).—

Synon. nov.

SAGHALIN: in rupibus littoris Kornakoff, *U. Faurie*, no. 575, July 1908 (holotype of *S. Fauriei*; photo. of type and isotype in A. A.).

In a note on the sheet of the type specimen Koidzumi has already identified *S. Fauriei* with *S. monbetsusensis* Franch., and Faurie no. 575 is cited by Nakai (l. c.) under the specimens from Korea but the name given by Léveillé is not mentioned.

¹ Continued from vol. XII. 281 (1931); for preceding parts see x. 108–132, 184–196.

Spiraea Martini Léveillé in Fedde, Rep. Spec. Nov. ix. 321 (1911); Cat. Pl. Yun-Nan, 244 (1917).—Rehder in Jour. Arnold Arb. i. 258 (1920).

Spiraea fulvescens Rehder in Sargent, Pl. Wilson. i. 439 (1913).

CHINA. Y u n n a n: environs de Yun-nan-sen, dans la montagne, ravines, bords de torrents, *E. Bodinier*, no. 89, March 2, 1897 (holotype of *S. Martini*; merotype and photo. in A. A.); Mengtze, barren clay hills, alt. 5000 ft. *A. Henry*, no. 10662 (holotype of *S. fulvescens* in A. A.).

Spiraea Cavaleriei Léveillé in Fedde, Rep. Spec. Nov. ix. 321 (1911); Fl. Kouy-Tchéou, 301 (1915).

CHINA. K w e i c h o u: district de Tou-chan, *J. Cavalerie* in herb. Bodinier, no. 2602, March–April 1899 (holotype; photo. in A. A.).

This species is closely related to the preceding and both may be forms of one species. It differs from *S. Martini* in the distinctly ovate leaves rounded at base, crenate and not at all lobed, less glaucous beneath, in the larger inflorescence with about 10 or more flowers and an elongated rhachis about 1 cm. long; in the larger flowers about 8 mm. across, in the slenderer pedicels up to 1.2 cm. long, and in the small leaflets at the base of the inflorescence being absent or reduced to very small bracts.

Spiraea pubescens Turczaninow in Bull. Soc. Nat. Moscou, v. 190 (1832).

Spiraea ouensanensis Léveillé in Fedde, Rep. Spec. Nov. vii. 197 (1909).—**Synon. nov.**

KOREA: in montibus Ouen-san, *U. Faurie*, no. 315, July 1906 (holotype of *S. ouensanensis*; photo. and isotype in A. A.).

An isotype of Faurie's no. 315 in this herbarium has the leaves broader and less pubescent and is just past flowering, while the type in the Edinburgh herbarium has leaves more like typical *S. pubescens* and is in fruit. Nakai (Tokyo Bot. Mag. XLII. 465, 466. 1928) distinguishes two forms, var. *lasiocarpa* and var. *leiocarpa*; the former seems to be the more common and *S. ouensanensis* belongs to it.

Spiraea ovalis Rehder in Sargent, Pl. Wilson. i. 446 (1913).

Spiraea microphylla Léveillé in Bull. Géog. Bot. xxv. 44 (1915); Cat. Pl. Yun-Nan, 244 (1917).—**Synon. nov.**

CHINA. Y u n n a n: rochers des montagnes à Kiao-mé-ti, alt. 3150 m., *E. E. Maire*, May 1912 (holotype of *S. microphylla*; merotype in A. A.).

This species was known so far only from the type specimen collected in Fang Hsien, Western Hupeh.

Spiraea Veitchii Hemsley in Gard. Chron. ser. 3, xxxiii. 258 (1903).

Spiraea atemnophylla Léveillé in Bull. Géog. Bot. xxv. 44 (1915); Cat. Pl. Yun-Nan, 244 (1917).—**Synon. nov.**

CHINA. Y u n n a n: rochers des montagnes à Kiao-mé-ti, 3200 m., *E. E. Maire*, Aug. (syntype of *S. atemnophylla*; photo. in A. A.); brousse de mamelon à Ta-hai, *E. E. Maire* (ex Léveillé; syntype of *S. atemnophylla*); pâturages du haut plateau de Ié-ma-tchouan, 3200 m., *E. E. Maire* (ex Léveillé; syntype of *S. atemnophylla*).

This species does not seem to have been recorded from Yunnan before.

Spiraea Mairei Léveillé in Bull. Géog. Bot. xxv. 43 (1915); Cat. Pl. Yun-Nan, 244 (1917).

CHINA. Y u n n a n: brousse des montagnes à Kiao-mé-ti, 3100 m., *E. E. Maire*, May 1912, "arbuste fragile, buissonnant; fleurs blanches" (holotype; merotype in A. A.).

This species is very similar to *S. Teniana* Rehd. in its inflorescence and the shape and serration of the leaves, but differs in the striped or slightly angled villous branchlets, in the leaves being pubescent on both sides with long accumbent hairs, in the longer more villous pubescence of the inflorescence and the pubescent sepals.

Spiraea japonica L. f. var. **acuminata** Franchet in Nouv. Arch. Mus. Paris, sér 2, viii. 218 (Pl. David. ii. 36) (1885).

Spiraea Bodinieri Léveillé in Fedde, Rep. Spec. Nov. ix. 322 (1911); Fl. Kouy-Tchéou, 361 (1915).—**Synon. nov.**

Spiraea Bodinieri var. *concolor* Léveillé, l. c. (1911).—**Synon. nov.**

Spiraea Esquirolii Léveillé, l. c. (1911); l. c. (1915).—**Synon. nov.**

CHINA. K w e i c h o u: Mont du Collège, *E. Bodinier*, July 3, 1900 (syntype of *S. Bodinieri*; photo. in A. A.); environs de Touchan, *J. Cavalerie*, no. 2682, June 1899 (syntype of *S. Bodinieri*); mont de Lou-hong-koan, *E. Bodinier*, no. 1709, June 10 and July 21, 1897 (syntypes of *S. Bodinieri* var. *concolor* photos. in A. A.); Yang-tien, *E. Bodinier*, no. 492, (not 429) July 16, 1900, "arbuste; fleur violacé" (syntype of *S. Esquirolii*; merotype in A. A.).

There is no specimen of *S. Bodinieri* with the data "Mont du Collège, Juillet 3, 1900, E. Bodinier" in the Léveillé herbarium, but by elimination it must be the sheet labeled in Léveillé's handwriting *Spiraea Bodinieri* without any further data.

Spiraea Bodinieri var. *concolor* is not mentioned in Flore de Kouy-Tchéou, but its type number is cited under *S. Bodinieri*; nor does the varietal name appear on his type specimens.¹

¹ *Spiraea holorhodantha* Léveillé in Bull. Geog. Bot. xxv. 44 (1915) is *Rodgersia pinnata* Franch. as determined by W. Edgar Evans in herb. Edinb.

Cotoneaster horizontalis Decaisne in Fl. des Serres, xxii. 168 (1877).

Diospyros Chaffanjonii Léveillé in Fedde, Rep. Spec. Nov. xii. 101 (1913); Fl. Kouy-Tchéou, 145 (1914).—**Synon. nov.**

CHINA. K w e i c h o u: Kouy-yang, cascade du Collège, *Chaffanjon*, May 12, 1928 (holotype of *Diospyros Chaffanjonii*; photo. in A. A.).

Léveillé compares his *Diospyros Chaffanjonii* with *D. vaccinioides* Lindl. to which it has a very slight resemblance only in the shape of the leaves, but the latter are considerably larger in *D. vaccinioides*.

Cotoneaster Franchetii Bois in Rev. Hort. 1902, p. 379, fig. 159–161, 164.

Cotoneaster Mairei Léveillé in Bull. Géog. Bot. xxv. 45 (1915); Cat. Pl. Yun-Nan, 229 (1917).—**Synon. nov.**

Cotoneaster Mairei var. *albiflora* Léveillé, l. c.—**Synon. nov.**

CHINA. Y u n n a n: rochers des montagnes derrière Tong-tchouan, 2600 m., *E. E. Maire*, June 1912 (holotype of *C. Mairei*; photo. in A. A.); rochers des collines à Kin-tchong-chan, 2550 m., *E. E. Maire*, May 1912, "arbuste dressé buissonnant; fleurs blanches sur calyce rouge" (holotype of *C. Mairei* var. *albiflora*; merotype in A. A.).

Var. *albiflora* differs only slightly in its smaller leaves and pure white flowers from typical *C. Mairei*; the color of the flowers varies in most species of this group from pure white to more or less flushed with pink in bud and on the back of the petals. The varietal name is not mentioned in the Catalogue des plantes du Yun-Nan and does not appear on the label of the specimen from Kin-tchong-chan.

Cotoneaster glaucophylla Franchet, Pl. Delavay. 222 (1890).

Photinia rosifoliolata Léveillé in Bull. Géog. Bot. xxiv. 142 (1914); Fl. Kouy-Tchéou, 349 (1915).—**Synon. nov.**

CHINA. K w e i c h o u: Tin-fan, *J. Cavalerie*, no. 3838, June 1909, "fleurs blanches" (holotype of *Photinia rosifoliolata*; merotype in A. A.).¹

Crataegus scabrifolia (Franch.) Rehder in Jour. Arnold Arb. xii. 71 (1931).

Crataegus Henryi Dunn in Jour. Linn. Soc. xxxv. 494 (1903).

Crataegus Bodinieri Léveillé in Bull. Soc. Bot. France, lv. 57 (1908).—**Synon. nov.**

CHINA. Y u n n a n: montagnes entre Ma-kay et Se-tsong-chou, *E. Bodinier*, April 4, 1897 (holotype of *C. Bodinieri*; merotype

¹ *Cotoneaster Blinii* Léveillé (Cat. Pl. Yun-Nan, 229. 1917) and *C. Esquirolii* Léveillé (Fl. Kouy-Tchéou, 345. 1915) do not belong to *Cotoneaster*, but the incomplete material does not allow to place them definitively. They may be conspecific and belong to the Pomoideae, resembling somewhat *Photinia* or *Stranvaesia*, but differing from them in the structure of the fruit, immature in *C. Esquirolii*.

in A. A.); Ma-chou, alt. 3000 m., *E. E. Maire*, April 1911–13 (in herb. Lévillé sub *C. Bodinieri*).

Both specimens are in bloom, while the type of Franchet's *Pirus scabrifolia* is in fruit.

Crataegus cuneata Siebold & Zuccarini in Abh. Akad. Münch. 2, IV. 130 (Fl. Jap. Fam. Nat. 1. 22) (1846).

Crataegus Argyi Lévillé & Vaniot in Bull. Soc. Bot. France, LV. 57 (1908).
—Lévillé in Mem. Acad. Ci. Art. Barcelona, ser. 3, XII. no. 22, p. 19 (1916).

Crataegus stephanostyla Lévillé & Vaniot, l. c. (1908).—Lévillé, l. c. (1916).

Crataegus Chantcha Lévillé in Fedde, Rep. Spec. Nov. x. 377 (1912); Fl. Kouy-Tchéou, 346 (1915).

CHINA. K i a n g s u: Chang-li-hong, Chang-sun, Vou-né, *Ch. d'Argy* [1846–66] (holotype of *C. Argyi*; photo in A. A.); Si-tcha-chun, Si-souo-se; Zi-se, montagnes, *Ch. d'Argy*, May 15 [1846–66] (holotype of *C. stephanostyla*); merotype in A. A.). K w e i c h o u: environs de Gan-pin, *E. Bodinier*, April 29, 1897 (holotype of *C. Chantcha*; photo. in A. A.).

The specimens of *C. stephanostyla* and *C. Chantcha* are in bloom and that of *C. Argyi* is in fruit. All three represent undoubtedly the widely distributed and characteristic *C. cuneata* Sieb. & Zucc.

Crataegus pinnatifida Bunge in Mém. Acad. Sci. St. Pétersb. II. 100 (Enum. Pl. Chin. Bor. 26) (1831).

Crataegus coreanus Lévillé in Fedde, Rep. Spec. Nov. VII. 197 (1909).

Crataegus pinnatifida Bge. var. *psilosa* Schneider in Ill. Handb. Laubholz. I. 769 (1906).—Nakai, Fl. Sylv. Kor. VI. 59, t. 26, fig. a (1916).

KOREA: circa Seoul communis, *U. Faurie*, no. 307, June 1906, and circa Chinnampo, *U. Faurie*, no. 308, Sept. 1906 (syntypes of *C. coreanus*; isotypes and merotype in A. A.).

Crataegus coreanus has been already identified by Nakai (l. c.) with *C. pinnatifida* var. *psilosa* Schneid., but this identification is true only as far as it concerns Faurie's no. 307, while no. 308 which is in fruit belongs to the typical form (var. *typica* Schneid. l. c.). The two forms differ only in their glabrous or pubescent inflorescence; they are hardly of varietal rank and do not occupy distinct geographical ranges.

Sorbus Koehneana Schneider in Bull. Herb. Boissier, sér. 2, VI. 316 (1906).

Sorbus Valbrayi Lévillé in Monde Pl. sér. 2, XVIII. 28 (1916); Cat. Pl. Yun-Nan, 242, fig. 62 (1917).—**Synon. nov.**

CHINA. Y u n n a n: plateau du Io-chan, 3400 m., *E. E. Maire*, June 1912, "grand arbuste rameux" (holotype of *S. Valbrayi*).

Sorbus Keissleri (Schneid.) Rehder in Sargent, Pl. Wilson. II. 269 (1915).

Sorbus Mairei Rehder & Lévillé apud Lévillé, Cat. Pl. Yun-Nan, 242 (1917), nomen.—**Synon. nov.**

Sorbus Aria var. *Mairei* Lévillé, Cat. Pl. Yun-Nan, 242 (1917), pro synon. *Sorbi Mairei*.

CHINA. Y u n n a n: rochers des montagnes à Kiao-mé-ti, alt. 3100 m., *E. E. Maire*, "arbuste buissonnant, haut 1 m. ou 2 m." (holotype of *S. Aria* var. *Mairei*; photo. in A. A.).

Lévillé cites (l. c.) "*S. Aria* Crantz var. *Mairei* Lévl. in Fedde Rep. III. 341," but neither there nor elsewhere did I find this name, though it appears on the label of the type specimen. I may have written to Lévillé with whom I corresponded at that time, that his *Sorbus Aria* var. *Mairei* did not belong to *S. Aria*, but I had no part in making the combination *S. Mairei*.

Sorbus Hemsleyi (Schneid.) Rehder in Sargent, Pl. Wilson. II. 276 (1915).

Pirus Koehnei Lévillé in Fedde, Rep. Spec. Nov. x. 378 (1912); Fl. Kouy-Tchéou, 351 (1915); non *Pyrus Koehnei* Schneid. (1906).—**Synon. nov.**

CHINA. K w e i c h o u: Pin-fa, montagnes, *J. Cavalerie*, no. 2376, June 15, 1905 (ex Lévillé; syntype of *Pirus Kochnei*); *J. Esquirol*, no. 385 (syntype of *Pirus Koehnei*; photo. in A. A.).

Photinia villosa (Thbg.) De Candolle, Prodr. II. 631 (1825).

Pirus brunnea Lévillé in Fedde, Rep. Spec. Nov. x. 377 (1912).—Rehder in Sargent, Pl. Wilson. II. 300 (1915).

Pirus sinensis Lindl. var. *Maximowicziana* Lévillé l. c. (1912).—Rehder, l. c. (1915).—**Synon. nov.**

Pirus spectabilis Ait. var. *albescens* Lévillé, l. c. (1912).—Rehder, l. c. (1915).

Pourthiaea villosa (Thbg.) Decne. var. *typica* (Schneid.) Nakai, Fl. Sylv. Kor. VI. 28 (1916).

Pourthiaea villosa var. *brunnea* (Lévl.) Nakai l. c. 29, t. 7 (1916).

KOREA. Q u e l p a e r t: in silvis Hallaisan, 800 m., *E. Taquet*, no. 2819, Oct. 1909 (holotype of *Pirus brunnea*; merotype and isotype in A. A.); in silvis Haichenam [?], *E. Taquet*, no. 2821, Aug. 1909 (holotype of *Pirus sinensis* var. *Maximowicziana*; photo. and isotype in A. A.); in silvis Hallaisan, 900 m., *E. Taquet*, no. 2815, June 1909 (holotype of *Pirus spectabilis* var. *albescens*; photo. and isotype in A. A.).

Pirus brunnea does not seem to be sufficiently different from typical *Photinia villosa* to consider it a distinct variety as done by Nakai, while he refers *Pirus spectabilis* var. *albescens* to his *Pourthiaea villosa* var. *typica*. *Pirus sinensis* var. *Maximowicziana* he does not mention. The latter species and *P. brunnea* are represented by fruiting specimens; *P. spectabilis* var. *albescens* is in bloom.

Photinia villosa var. *coreana* (Decne.) Rehder in Jour. Arnold Arb. II. 45 (1920).

Pirus mokpoensis Léveillé in Fedde, Rep. Spec. Nov. VII. 200 (1909).

Pourthiaea villosa var. *coreana* (Decne.) Nakai, Fl. Sylv. Kor. VI. 29 (1916).

KOREA: circa Mokpo, *U. Faurie*, no. 1556, May 1907 (holotype of *Pirus mokpoensis*; isotype in Herb. Arnold Arb.).

Pirus mokpoensis was first identified with *Photinia villosa* var. *coreana* by Nakai.

Photinia Beauverdiana Schneider in Bull. Herb. Boiss. sér. 2, VI. 319 (1906).

Photinia Cavaleriei Léveillé in Fedde, Rep. Spec. Nov. IV. 334 (1907); Fl. Kouy-Tchéou, 349 (1915).—**Synon. nov.**

CHINA. K w e i c h o u: Ly-po, *J. Cavalerie*, no. 2631, May 1899 (holotype of *P. Cavaleriei*; photo. in A. A.).

Photinia parvifolia Schneider, Ill. Handb. Laubholz. I. 711, fig. 392 0-0' (1906).

Photinia subumbellata Rehder & Wilson in Sargent, Pl. Wilson. I. 189 (1912).—**Synon. nov.**

Crataegus Cavaleriei Léveillé, Fl. Kouy-Tchéou, 346 (1915), quoad specimen cit. 1303; non Léveillé & Vaniot (1908).

Viburnum Komarovii Léveillé & Vaniot in Fedde, Rep. Spec. Nov. IX. 78 (1910); Fl. Kouy-Tchéou, 66 (1914).—**Synon. nov.**

CHINA. K w e i c h o u: Pin-fa, montagne, *J. Cavalerie*, no. 1303, May 3, 1902 (? paratype of *Viburnum Komarovii*; photo. in A. A.); Ma-jo, *J. Cavalerie*, no. 1303, Oct. 1908 (holotype of *Viburnum Komarovii*; merotype in A. A.); no. 1892, Sept. 1903 (ex Léveillé, Fl. Kouy-Tchéou).

There seems to be considerable confusion in Léveillé's numbers. In Léveillé's herbarium in the cover of *Crataegus Cavaleriei* there is a flowering specimen from Pin-fa, May 3, 1902, with the original number 93 crossed out and 1303 written over it, but the fruiting specimen under no. 93 upon which Léveillé's description is based belongs to *Malus Sieboldii* (Rgl.) Rehd. As *Viburnum Komarovii* Léveillé describes (l. c.) under no. 1303 flowering and fruiting specimens, though he gives only October 1908 as collecting date under the original description, but in the Flore du Kouy-Tchéou he cites an additional number 1892, Sept. 1903, from Pin-fa which I have not seen. Apparently the flowering specimen in the cover of *Crataegus Cavaleriei* is the flowering specimen described, but not cited under *Viburnum Komarovii*; no reference to a specimen collected May 3, 1902 appears under *Crataegus Cavaleriei* or *Viburnum Komarovii*.

With the abundant material now at hand I cannot find that *P. subumbellata* Rehd. & Wils. is sufficiently distinct from *P. parvi-*

folia to be maintained as a species, since the extreme forms are connected by intermediate specimens which makes it difficult to separate clearly the two groups.

Photinia amphidoxa (Schneid.) Rehder & Wilson in Sargent, Pl. Wilson. I. 190 (1912).

Pirus Feddei Léveillé in Fedde, Rep. Spec. Nov. XII. 189 (1913); Fl. Kouy-Tchéou, 350 (1915).

CHINA. K w e i c h o u: Pin-fa, *J. Cavalerie*, no. 2533, Oct. 11, 1905 (holotype of *Pirus Feddei*; photo. in A. A.).

Photinia crassifolia Léveillé, Fl. Kouy-Tchéou, 349 (1915), nomen seminudum.—Cardot in Bull. Mus. Nat. Hist. Paris, XXV. 398 (1919).

Photinia Cavaleriei Léveillé in Fedde, Rep. Spec. Nov. XI. 66 (1912); non Léveillé (1907).

Photinia crassifolia Levl. var. *denticulata* Cardot in Lecomte, Not. Syst. III. 372 (1918).

CHINA. K w e i c h o u: Tin-fan, *J. Cavalerie*, no. 3571 (in part) June 1909 (holotype of *P. Cavaleriei*; merotype in A. A.); Gan-chouen, *J. Cavalerie*, no. 3571 (in part) April 1912 (paratype of *P. crassifolia*; merotype in A. A.).

This species was first published as *P. Cavaleriei* based on a specimen collected at Tin-fan in 1909 by Cavalerie and numbered 3571; in 1915 Léveillé enumerates under the name *P. crassifolia* the preceding specimen with the addition of a specimen from Gan-chouen collected in 1912 and also numbered 3571, but without reference to the previous name and description. The species varies in the pubescence of the inflorescence and in the denticulation of the leaves; in the specimen from Tin-fan the inflorescence is densely villous except the calyx, and the leaves are practically entire while in a flowering specimen from Gan-chouen the inflorescence is nearly glabrous, though the base of the peduncle and the branchlets are densely villous, and the leaves are entire, but are distinctly denticulate in a specimen from the same locality with an old densely villous inflorescence. The latter apparently is the specimen upon which Cardot based his var. *denticulata*, while the flowering specimen may be of the collection of 1910 also from Gan-chouen mentioned by him, but not referred to by Léveillé.

Photinia serrulata Lindley in Trans. Linn. Soc. XIII. 103 (1821), excl. syn. *Crataegus glabra* Thbg.

Stranvaesia Argyi Léveillé in Mem. Acad. Ci. Art. Barcelona, ser. 3, XII. 560 (Cat. Pl. Kiang-Sou, 20) (1916), pro synonym. *S. Calleryanae* Dene.

CHINA. K i a n g s u: without locality, *Ch. d'Argy* [1848-66] (holotype of *Stranvaesia Argyi*; photo. in A. A.).

Stranvaesia Argyi seems to be only an herbarium name given by Léveillé to a specimen without any other data except Léveillé's label "*Stranvaesia Argyi* Lévl." He published it later erroneously as a synonym of *S. Calleryana*.

Photinia Bodinieri Léveillé in Fedde, Rep. Spec. Nov. iv. 334 (1907).—Cardot in Bull. Mus. Nat. Hist. Paris, xxv. 402 (1919).

Hiptage Esquirolii Léveillé in Fedde, Rep. Spec. Nov. x. 372 (1912); Fl. Kouy-Tchéou, 271 (1914).—**Synon. nov.**

Photinia serrulata Léveillé, Fl. Kouy-Tchéou, 349 (1915), quoad **synon. et specimen cit. no. 2256.**—Non Lindley.

CHINA. K w e i c h o u: environs de Kouy-yang, mont. du Collège, *E. Bodinier*, no. 2256, May 18, 1898 (holotype of *Photinia Bodinieri*; photo. in A. A.); Choui-t'euou, route de Tin-fan à Lo-fou, alt. 900 m., *J. Esquirol*, no. 2097, May 4, 1900 (bel arbre, fleurs blanches; holotype of *Hiptage Esquirolii*; merotype in A. A.).

In his Flore du Kouy-Tchéou Léveillé refers his *Photinia Bodinieri* to *P. serrulata* Lindl., but as Cardot (l. c.) points out, *P. Bodinieri* can be readily distinguished by the larger flowers and the more connate styles.

Photinia Mairei Léveillé in Monde des Pl. ser. 2, xviii. 28 (1916); Cat. Pl. Yun-Nan, 230 (1917).

CHINA. Y u n n a n: rochers, brousse des montagnes à Kiao-mé-ti, 3100 m., *E. E. Maire*, May 1912 (holotype; merotype in A. A.).

Of this plant I have before me a rather meagre specimen with a small crowded paniculate inflorescence not leafy at base; the leaves are elliptic-obovate, crenate-serrulate and 6–7 cm. long. The inflorescence recalls that of *Eriobotrya*, but the nearly superior ovary removes it from that genus. I do not know any species either in *Eriobotrya* or in *Photinia* with which it could be compared.

Stranvaesia Davidiana Decaisne in Nouv. Arch. Mus. Paris, x. 179 (1874).

Pirus Cavaleriei Léveillé in Fedde Rep. Spec. Nov. xi. 66 (1912); Fl. Kouy-Tchéou, 350 (1915).—**Synon. nov.**

CHINA. K w e i c h o u: Pin-fa, *J. Cavalerie*, no. 3569, Oct. 1908 (holotype of *Pirus Cavaleriei*; merotype in A. A.).

Eriobotrya Cavaleriei (Lévl.), comb. nov.

Hiptage Cavaleriei Léveillé in Fedde, Rep. Spec. Nov. x. 372 (1912); Fl. Kouy-Tchéou, 271 (1914).

Eriobotrya Brackloii Hand.-Mazz. var. *atrichophylla* Handel-Mazzetti in Anz. Akad. Wiss. Wien Math. Naturw. Kl. 1922, no. 12, p. 103 (Pl. Nov. Sin. Forts. 16, p. 2) (1922).—**Synon. nov.**

CHINA. K w e i c h o u: Pin-fa, montagne en pente, *J. Cavalerie*, no. 3220 May 20, 1907 (arbre de 9 m. de hauteur; fl. blanches odor; holotype of *Hiptage Cavaleriei*; merotype in A. A.).

In the original place of publication the citation of specimen and locality is lacking, but is given in *Flore du Kouy-Tchéou* (l. c.).

As *Eriobotrya Brackloi* var. *atrichophylla* Hand.-Mazz. becomes a synonym of *E. Cavaleriei* (Lévl.), typical *E. Brackloi* must be considered a variety of that species and should bear the name ***Eriobotrya Cavaleriei* var. *Brackloi*** (Hand.-Mazz.), new comb. (*E. Brackloi* Handel-Mazzetti in Anz. Akad. Wiss. Wien Math.-Naturw. Kl. 1922, no. 12, p. 102 [Pl. Nov. Sin. Forts. 16, p. 2] [1922]).

Eriobotrya Seguini (Lévl.) Cardot apud Guillaumin in Bull. Soc. Bot. France, LXXI. 287 (1924), "Seguinii."

Symplocos Seguini Léveillé in Fedde, Rep. Spec. Nov. x. 431 (1912); Fl. Kouy-Tchéou, 408 (1915).

Eriobotrya pseudo-Raphiolepis Cardot in Lecomte, Not. Syst. III. 371 (1918).

CHINA. K w e i c h o u: environs de Ou-la-gay et de Hoang-kochou, *J. Seguin* in herb. *Bodinier*, nos. 2262, April 1898, and 2617, March 1, 1899 (syntypes of *Symplocos Seguini* [in herb. Edinb.] and of *Eriobotrya pseudo-Raphiolepis* [in herb. Paris]; photo. and fragments of no. 2617 [herb. Edinb.] in A. A.).

This species was first described by Léveillé as *Symplocos Seguini*, but the herbarium specimens bear the name *Lindera Seguini* Lévl. in his own handwriting. On duplicates of the same numbers in the Paris Herbarium Cardot based his *E. pseudo-Raphiolepis*. The connection was discovered when Guillaumin writing his paper "Observations sur les *Symplocos* d'Extrême-Orient" examined the type specimen of *Symplocos Seguini* and found that it was not a *Symplocos*, but an *Eriobotrya*.

Amelanchier asiatica (Sieb. & Zucc.) Endlicher apud Walpers, Rep. II. 55 (1843).—Nakai, Fl. Sylv. Kor. VI. 19, t. 1 (1916).

Pirus Taqueti Léveillé in Fedde, Rep. Sp. Nov. VII. 199 (1909).

Pirus Vanioti Léveillé, op. cit. 200 (1909).

KOREA: Hallaisan, in silvis, *U. Faurie*, nos. 1559, 1560 (ex Léveillé), 1561, May to July 1907 (syntypes of *Pirus Taqueti*; isotype of no. 1561 in A. A.); same locality, *E. Taquet*, no. 103, Oct. 1907 (syntype of *P. Taqueti*); Quelpaert, in silvis, *U. Faurie*, no. 1557, May 1907 (holotype of *Pirus Vanioti*; isotype in herb. A. A.).

Pirus Taqueti and *P. Vanioti* had already been identified with *Amelanchier asiatica* by Nakai (l. c.).

Malus Sieboldii (Reg.) Rehder in Sargent, Pl. Wilson. II. 293 (1915).

Crataegus Cavaleriei Léveillé & Vaniot in Bull. Soc. Bot. France, LV. 58 (1908); Fl. Kouy-Tchéou, 346 (1915), excl. no. cit. 1303.—**Synon. nov.**

Pirus subcrataegifolia Léveillé in Fedde, Rep. Spec. Nov. VII. 199 (1909).

Photinia rubro-lutea Léveillé in Fedde, Rep. Spec. Nov. IX. 460 (1911); Fl. Kouy-Tchéou, 349 (1915).—**Synon. nov.**

Crataegus Taquetii Léveillé in Fedde, Rep. Spec. Nov. X. 377 (1912).—**Synon. nov.**

Pirus Esquirolii Léveillé in Fedde, Rep. Spec. Nov. XII. 189 (1913); Fl. Kouy-Tchéou, 350 (1915).—**Synon. nov.**

Malus Toringo Siebold, Cat. Rais. I. 4 (1856), nomen.—*Nakai*, Fl. Sylv. Kor. VI. 35, t. 10 (1916).

KOREA. **Q u e l p a e r t**: Hallaisan, *U. Faurie*, no. 1558, June 1907 (holotype of *Pirus subcrataegifolia* and syntype of *Crataegus Taquetii*); in silvis Hallaisan, 900 m., *E. Taquet*, no. 2828, Oct. 1909 (syntype of *Crataegus Taquetii*; isotype in A. A.); in silvis Yengsil, 1000 m., *E. Taquet*, no. 4220, Aug. 12, 1910 (syntype of *Crataegus Taquetii*; isotype in A. A.).

CHINA. **K w e i c h o u**: Pin-fa, montagne, *J. Cavalerie*, no. 93, July 23, 1902 (holotype of *Crataegus Cavaleriei*; photo. in A. A.); same locality, *J. Cavalerie*, no. 1304, April 2, 1902 (holotype of *Pirus Esquirolii*; photo. in A. A.); without locality, *J. Cavalerie*, no. 3303, Nov. 13, 1907 (holotype of *Photinia rubro-lutea*; merotype in A. A.).

Malus Sieboldii seems to be widely distributed in southeastern China, ranging west to Kweichou, as the following additional specimens in the herbarium of the Arnold Arboretum show: Chekiang (*N. T. Liou*, no. 442), Kiangsi (*H. H. Hu*, no. 943), Kwangtung (*Y. Tsiang*, no. 1381), Kwangsi (*R. C. Ching*, no. 5935), Hunan (*Handel-Mazzetti*, no. 11787, Pl. Sin. cur. *Handel-Mazzetti*, no. 94) and Kweichou (*Handel-Mazzetti*, no. 285, *Y. Tsiang*, nos. 5006 and 5521). The species does not seem to occur in northern China and its Chinese area shows no connection with the range of the species in Korea and Japan, but I can see no marked difference between the plants of the two areas and have to consider them conspecific in spite of their geographical separation.

Docynia Delavayi (Franch.) Schneider in Fedde, Rep. Spec. Nov. III. 180 (1906).

Cotoneaster Bodinieri Léveillé in Bull. Géog. Bot. XXV. 44 (1915); Cat. Pl. Yun-Nan, 229 (1917).—**Synon. nov.**

CHINA. **Y u n n a n**: près de la frontière de Kouy-Tchéou à Kiang-ti, *E. Bodinier*, April 9, 1897 (holotype of *Cotoneaster Bodinieri*; photo. and fragments in A. A.).

Cotoneaster Bodinieri was first identified with *D. Delavayi* by H. E. Evans according to a note on the type specimen.

Docynia rufifolia (Lévl.), comb. nov.

Pirus (*Cydonia*) *rufifolia* Léveillé in Bull. Géog. Bot. xxv. 46 (1915);
Cat. Pl. Yun-Nan, 231 (1917), sphalmate "*rubifolia*."

Malus docynioides Schneider in Bot. Gaz. LXIII. 400 (1917).—**Synon. nov.**

Docynia docynioides (Schneid.) Rehder in Jour. Arnold Arb. II. 58 (1920).

CHINA. Y u n n a n: flanc des coteaux arides à Lou-pou, 3050 m., *E. E. Maire*, June 1912, "fleurs blanches; fruits jaunes, oblong" (type of *P. rufifolia*; merotype in A. A.).

Pyrus Calleryana Decaisne, Jard. Fruit. I. in textu ad t. 8 (1872).

Pirus Mairei Léveillé in Fedde, Rep. Spec. Nov. XII. 189 (1913); Cat. Pl. Yun-Nan, 231 (1917).

CHINA. Y u n n a n: Tche-hay, haies de la plaine, 2500 m., *E. E. Maire*, March 1911 (holotype of *Pirus Mairei*; merotype in A. A.).

Rosa multiflora Thbg. var. **adenophora** Franchet & Savatier, Enum. Pl. Jap. I. 134 (1875), nomen; II. 345 (1879).—Nakai, Fl. Sylv. Kor. VII. 30, t. 5 (1918).

Rosa Nakaiana Léveillé in Fedde, Rep. Spec. Nov. X. 432 (1912).

KOREA: "Corea media" *U. Faurie*, no. 330, July 1906 (holotype of *R. Nakaiana*; photo. in A. A.).

Rosa multiflora var. **quelpaertensis** (Lévl.) Rehder & Wilson in Sargent, Pl. Wilson. II. 335 (1915).

Rosa mokanensis Léveillé in Fedde, Rep. Spec. Nov. VII. 340 (1909), pro parte typica.—Willmott, Gen. Rosa, II. 511, t. (1914).

Rosa quelpaertensis Léveillé in Fedde, Rep. Spec. Nov. X. 378 (1912).

Rosa mokanensis var. *quelpaertensis* Willmott, Gen. Rosa, II. 512, t. (1914).

Rosa multiflora var. *microphylla* Nakai, Fl. Sylv. Kor. VII. 30 (1918), pro parte.—Non Franchet & Savatier.

KOREA. Q u e l p a e r t: Mokan, *E. Taquet*, no. 778, June 8, 1908 (in part; syntype of *R. mokanensis*; photo. and isotype in A. A.); in sepibus Hognon, *E. Taquet*, no. 2870, May 1909 (holotype of *R. quelpaertensis*; isotype in A. A.); in petrosis secus vias, *U. Faurie*, no. 1567, May 1907; in sepibus, *E. Taquet*, no. 5587, June 1911; Hoatien, *E. Taquet*, no. 5590, June 1911 (nos. 1567, 5587 and 5590 in herb. Léveillé sub *R. quelpaertensis*).

The type specimens of *R. mokanensis* consists of two branches, one representing *R. multiflora* and one *R. Wichuraiana*; the former must be considered the type of *R. mokanensis*, as the character "pedunculis glandulosus" applies only to this form.

Nakai refers *R. quelpaertensis* to *R. multiflora* var. *microphylla* Franch. & Savatier, but this variety is described as having ovate leaflets not cuneate at base, while in var. *quelpaertensis* the leaflets are generally obovate and cuneate.

Rosa multiflora var. **cathayensis** Rehder & Wilson in Sargent, Pl. Wilson. II. 304 (1915).

Rosa macrophylla var. *hypoleuca* Léveillé, Fl. Kouy-Tchéou, 354 (1915), nomen.

CHINA. K w e i c h o u : Gan-chouen, commune, *J. Cavalerie*, no. 3953, "fl. blanches" (holotype of *R. macrophylla* var. *hypoleuca*; photo. in A. A.). Yunnan: haies, plaine de Long-tou, alt. 2400 m., *E. E. Maire*, "fl. rosées" (as *R. clavigera* forma in herb. Léveillé; photo. in A. A.).

The flowers are white according to the collector and borne in few-flowered corymbs; the leaflets are rather small and densely grayish pubescent beneath, but not whitish as the name seems to imply. Another specimen collected by Bodinier in 1888 on the "Pehoō chan" and named *R. macrophylla* var. *hypoleuca* in Léveillé's herbarium but not in his handwriting belongs to *R. Sweginzowii* Koehne or a related species.

Rosa multiflora var. **carnea** Thory in Redouté, *Roses*, II. 67, t. (1821).—Rehder & Wilson in Sargent, Pl. Wilson. II. 305 (1915).—Byhouwer in Jour. Arnold Arb. x. 86 (1929).

Rosa Lebrunei Léveillé in Bull. Géog. Bot. xxv. 46 (1915); Cat. Pl. Yunnan, 235 (1917).

Rosa Blinii Léveillé, l. c. (1915); l. c. 234 (1917).

CHINA. Y u n n a n : haies, plaine de La-kou, alt. 2400 m., *E. E. Maire*, May [1910–14], "épineux, buissonnant, haut 0.80 m.; fl. doubles, roses ou rouges, inodores" (holotype of *R. Lebrunei*; photo. in A. A.); haies de la plaine à Tong-tchouan, alt. 2500 m., *E. E. Maire*; Mai 1910–14 "petit rosier, épineux, fl. rouges, abondantes par bouquets" (type of *R. Blinii*; photo. in A. A.)

Rosa Wichuraiana Crépin in Bull. Soc. Bot. Belg. xxv. 189 (1886).—Rehder & Wilson in Sargent, Pl. Wilson. II. 335 (1915).

Rosa Luciaé Franchet & Rochebrune apud Crépin in Bull. Soc. Bot. Belg. x. 323 (1871), pro parte.—Nakai, Fl. Sylv. Kor. VII. 28, t. 2 (1918), pro parte.

Rosa Taqueti Léveillé in Fedde, Rep. Spec. Nov. VII. 199 (1909), pro parte typica.

Rosa mokanensis Léveillé in Fedde, Rep. Spec. Nov. VII. 340 (1909), pro parte.

Rosa acicularis var. *Taquetii* Nakai in Tokyo Bot. Mag. xxx. 241 (1916) et Fl. Sylv. Kor. VII. 38 (1918), tantum quoad synonym. citatum.

KOREA. Q u e l p a e r t : Hallaisan, *E. Taquet*, no. 102, October 1907 (in part, as to fruiting specimen; syntype of *R. Taqueti*; photo. in A. A.); Mokaan, *E. Taquet*, no. 778, June 8, 1908 (in part; syntype of *R. mokanensis*; photo. in A. A.); Muktjafang [?], *E. Taquet*, no. 5586, Aug. 25, 1911 (as *R. Mokanensis* in herb. Léveillé); in sepibus, *E. Taquet*, nos. 5588, 5589, May 1911 (as *R. Fauriei* Lévl. in herb. Léveillé).

The type specimen of *R. Taqueti* consists of two branches, one belonging to *R. Wichuraiana* and one to *R. acicularis*; according to the description "stipulae . . . margine glanduloso-fimbriatae; inflorescentia spicata flexuosa; fructus rubri, globosi, ut pedicelli glandulosi; styli hirti, columnares" the branch of *R. Wichuraiana* should be considered the type. The type specimen of *R. mookanensis* also consists of two branches, of which, as shown under *R. multiflora* var. *quelpaertensis*, that representing var. *quelpaertensis* must be considered the type; the other specimen is an unusually small-leaved form of *R. Wichuraiana*. Taquet's nos. 5588 and 5589 are named *R. Fauriei* Lévl. in Lévillé's handwriting, but the type of that species belongs to *R. Maximowicziana* Reg. and the paratype to *R. acicularis* Lindl.

Nakai refers *R. Wichuraiana* as a synonym to *R. Luciae* Franch. & Rochebr., which, though very closely related, may be distinguished by its more upright habit, thinner and narrower, usually acute, mostly 7 leaflets and smaller flowers.

Rosa Maximowicziana Regel in Act. Hort. Petrop. v. 295, 378 (1878).—Nakai, Fl. Sylv. Kor. VII. 26, t. 1 (1918).

Rosa Fauriei Lévillé in Fedde, Rep. Spec. Nov. VII. 199 (1909), excl. specimine Faurie, no. 99.

KOREA: Ouen-san, *U. Faurie*, no. 328, July 1906 (syntype of *R. Fauriei*; photo. in A. A.).

The description of *R. Fauriei* is based almost exclusively on Faurie's no. 328 which is the first specimen enumerated, and constitutes the type of species; from the second specimen, Faurie's no. 99, only the description of the fruit was drawn and this specimen belongs to *R. acicularis* Lindl. The name *R. Fauriei* does not appear on Faurie's no. 328 in the herbarium of Lévillé.

Rosa Brunonii Lindley, Ros. Monog. 120, t. 14 (1820).—Byhouwer in Jour. Arnold Arb. x. 87 (1929).

Rosa clavigera Lévillé in Fedde, Rep. Spec. Nov. XIII. 338 (1914); Cat. Pl. Yun-Nan, 234 (1917).

CHINA. Y u n n a n: haies, plaine de Long-tan, alt. 2500 m., *E. E. Maire*, May [1910-14] "grand rosier; feuilles vert luisant, pubescentes au dessous; fl. blanches" (holotype of *R. clavigera*; photo. in A. A.).

Rosa Rubus Lévillé & Vaniot in Bull. Soc. Bot. France, LV. 55 (1908).—Willmott, Gen. Rosa, II. 507 (1914).—Lévillé, Fl. Kouy-Tchéou, 354 (1915).—Byhouwer in Jour. Arnold Arb. x. 90 (1929)

Rosa Rubus var. *yunnanensis* Lévillé in Bull. Soc. Bot. France, LV. 55 (1908); Cat. Pl. Yun-Nan, 235 (1917).

CHINA. K w e i c h o u: route de Pin-yang, *L. Martin* in herb. Bodinier, no. 2603, May 12, 1899, (holotype of *R. Rubus*; photo. in A. A.). Y u n n a n: montagnes, au bord de la plaine de Lo-pintchéou, *E. Bodinier*, no. 2603,¹ April 6, 1897, "branches sarmentenses" (holotype of *R. Rubus* var. *yunnanensis*; photo. and merotype in A. A.).

The original labels in Léveillé's herbarium of *R. Rubus* and *R. Rubus* var. *yunnanensis* seem to have been interchanged; they do not bear Léveillé's names which are on separate slips in Léveillé's handwriting, but the name *R. Rubus* var. *yunnanensis* does not appear at all on the specimen; instead a slip with the name *R. Bodinieri*, a species identical with *R. microcarpa* Lindl., has been pasted by mistake on that sheet. The specimen with the label of Bodinier's no. 2603 agrees with the description of var. *yunnanensis* in the characters "petala apice rotundata; folia utrinque viridia, argute dentata," while the sheet with Bodinier's label of the Yunnan specimen contains the plant which has crenate-serrate leaflets grayish beneath and emarginate petals, all characters given by Léveillé for typical *R. Rubus*. To the Arnold Arboretum Léveillé had sent in 1915 as *R. Rubus* a specimen which agrees with *R. Rubus yunnanensis*; this shows that even at that time confusion existed or that Léveillé having more material of var. *yunnanensis* sent a specimen of the variety instead of the type.

Rosa Gentiliana Léveillé & Vaniot in Bull. Soc. Bot. France, LV. 55 (1908).—Willmott, Gen. Rosa, II. 513, t. (1914).—Rehder & Wilson in Sargent, Pl. Wilson. II. 312 (1915).—Léveillé in Mem. Acad. Ci. Art. Barcelona, ser. 3, XII. no. 22, p. 20 (Cat. Pl. Kiang-Sou); Cat. Ill. Seu-Tchouen, 164, t. 59 (1918).

CHINA. K i a n g s u: without precise locality, *Ch. d'Argy* [1846-66]; (holotype; fragments in A. A.).

The two illustrations cited above are obviously based on the same specimen which apparently is the type, but does not seem to be in Léveillé's herbarium now.

I have seen no material of this species except some fragments sent by Léveillé in 1915 to the Arnold Arboretum.² The species is widely distributed in eastern and Central China, but the peculiar shape of the leaflets stressed by Léveillé represents apparently an aberrant form not constant for the species.

¹This number in pencil in Léveillé's, not in Bodinier's, handwriting.

²The type specimen of this species, of *R. Rubus*, *R. adenoclada* and possibly of some other species are not now in the Herbarium Léveillé; they were loaned to Miss Willmott when she was preparing her work THE GENUS ROSA and probably became separated from Léveillé's collection.

Rosa adenoclada Léveillé in Fedde, Rep. Spec. Nov. x. 431 (1912); Fl. Kouy-Tchéou, 353 (1915).—Willmott, Gen. Rosa, II. 517, t. (1914).

Rosa Gentiliana Rehder & Wilson in Sargent, Pl. Wilson. II. 312 (1915) quoad syn. *R. adenoclada*.—Non Léveillé.

Rosa Gentiliana var. *adenoclada* Léveillé, Cat. Pl. Yun-Nan, 234 (1917), nomen.

CHINA. K w e i c h o u: Grotte de Gai-kio, *J. Esquirol*, no. 2100, May 3, 1910 "couleur rouge" (holotype).

The material of this species in Léveillé's herbarium is very meagre consisting of a single leaf, a piece of a leafless branch and some detached flowers and leaflets, but there is a good figure of a flowering branch in Miss Willmott's book. It is a very puzzling Rose and apparently does not belong to *R. Gentiliana* where it was placed by my former colleague, Mr. Wilson, and myself. It differs from that species in the pilose, more or less free styles, in the red color of the flowers and in the slightly bristly and stipitate-glandular branch. It may possibly be a hybrid of *R. Rubus* Lévl. and *R. chinensis* which would account for the color of the flowers and the character of the styles. It is also somewhat similar to *R. lucidissima* Lévl.

Rosa longicuspis A. Bertoloni in Mem. Accad. Sci. Bologna, XI. 201, t. 13 (Misc. Bot. XXI. 15, t. 3) (1861).—Rehder & Wilson in Sargent, Pl. Wilson. II. 313 (1915).—Byhouwer in Jour. Arnold Arb. XI. 88 (1929).—Léveillé, Cat. Pl. Yun-Nan, 235 (1917).

Rosa Willmottiana Léveillé in Fedde, Rep. Spec. Nov. XI. 299 (1912).—Willmott, Gen. Rosa, 521, t. (1914).

Rosa Charbonneaui Léveillé in Fedde, Rep. Spec. Nov. XIII. 338 (1914).

CHINA. Y u n n a n: brousse et haies a Long-ky, 700 m., *E. E. Maire*, June 1911, "Eglantier épineux a long rameaux; fl. blanches" (holotype of *R. Willmottiana*; photo. in A. A.); plaine de Long-tan, 2500 m., *E. E. Maire*, May 1913 "rosier épineux à long rameaux; fl. d'abord blanches, puis sanguines" (holotype of *R. Charbonneaui*; photo. in A. A.).

Rosa Willmottiana represents a form with rather large leaflets up to 8.5 cm. long and not reticulate beneath, while *R. Charbonneaui* has much smaller more finely serrate leaflets reticulate beneath.

Rosa microcarpa Lindley, Ros. Monog. 130, t. 18 (1820).—Rehder & Wilson in Sargent, Pl. Wilson. II. 314 (1915).

Rosa sorbiflora Focke in Gard. Chron. ser. 3, XXXVII. 227, fig. 96 (1905).—Léveillé, Fl. Kouy-Tchéou, 354 (1915).

Rosa Chaffanjoni Léveillé & Vaniot in Bull. Soc. Bot. France, LV. 56 (1908).

Rosa Bodinieri Léveillé & Vaniot, l. c.[†](1908).—Willmott, Gen. Rosa, II. 485, t. (1914).—Léveillé, Fl. Kouy-Tchéou, 353 (1914).

Rosa Esquirolii Léveillé & Vaniot in Bull. Soc. Bot. France, LV. 56 (1908).—Willmott, Gen. Rosa, II. 485, t. (1914).—Léveillé, Fl. Kouy-Tchéou, 353 (1915).

Rosa Cavaleriei Léveillé in Fedde, Rep. Spec. Nov VIII. 61 (1910).

CHINA. K w e i c h o u: environs de Kouy-yang, mont du Collège, haies, près des villages, *J. Chaffanjon* in herb. Bodinier, no. 2292, June 2, 1898, "tiges sans épines; fl. blanches" (holotype of *R. Chaffanjonii*; photo. and merotype in A. A.); mont de Lou-tsong-koan, cc. dans la montagne, E. Bodinier, no. 1604, May 31, 1897, "fleurs blanches" (holotype of *R. Bodinieri*; photo. and merotype in A. A.); murs de Tchen-lin, *J. Cavalerie*, no. 117, June 1904, "fl. blanches" (holotype of *R. Esquirolii*; photo. in A. A.); montagnes Hoang-tsao-pa, *J. Esquirol*, no. 1517, June 1909, "fl. blanches" (holotype of *R. Cavaleriei*; photo. and merotype in A. A.).

Rosa Chaffanjonii is a form with unarmed branches; the styles described as glabrous by Léveillé are villous except near the base. *R. Esquirolii* represents a form with very small leaflets.

Rosa Banksiae Aiton, Hort. Kew. ed. 2, III. 258 (1811).—Byhouwer in Jour. Arnold Arb. XI. 91 (1929).

Rosa Banksiae f. *aculeata* Léveillé, Cat. Pl. Yun-Nan, 234 (1917), nomen.

Rosa Banksiae f. *subinermis* Léveillé, l. c. (1917), nomen.

Rosa Banksiae f. *albiflora* Léveillé, l. c. (1917), nomen.

CHINA. K w e i c h o u: Kouy-yang, mont. du Collège, dans les haies, près des villages, *J. Chaffanjon* in herb. Bodinier, no. 2259, May 15, 1898 "fl. blanches, souvent doubles"; Gan-chouen, *J. Cavalerie*, no. 3943, May 1910. Y u n n a n: Tong-tchouan, haies de la plaine, alt. 2500, *E. E. Maire*, April [1910-14], "fl. blanches doubles"; environs de Yun-nan-sen, *E. Bodinier*, March 24, 1897, "fl. tantôt simples, blanches, très souvent doubles."

There are no specimens in the Léveillé herbarium named f. *aculeata* and f. *subinermis*; these names were apparently taken from Focke's f. *subinermis* fl. pleno and f. *aculeata* fl. pleno albo (in Not. Bot. Gard. Edinb. v. 65, 66 [1913]). Also of f. *albiflora* there is no specimen and this name may belong either here or to the white, single-flowered *R. Banksiae* f. *normalis* Regel.

Rosa Banksiae f. *lutea* Lindl. Bot. Reg. XIII. t. 1105 (1827).—Byhouwer in Jour. Arnold Arb. XI. 92 (1929).

Rosa Banksiae f. *luteiflora* Léveillé, cat. Pl. Yun-Nan, 234 (1917), nomen.

CHINA. Y u n n a n: haies de la plaine à Tong-tchouan, alt. 2500 m., *E. E. Maire*, April [1910-14], "fl. jaunes, doubles, odorantes."

There is no specimen labeled f. *luteiflora* in Léveillé's herbarium, but the name doubtless belongs to the yellow double flowered form which is represented in his herbarium.

Rosa lucidissima Léveillé in Fedde, Rep. Spec. Nov. ix. 444 (1911); Fl. Kouy-Tchéou, 354 (1915).—Willmott, Gen. Rosa, II. 519, t. (1914).—Rehder & Wilson in Sargent, Pl. Wilson. II. 320 (1915), sub *R. chinensis* f. *spontanea*.

CHINA. K w e i c h o u: Pin-fa, précipices, *J. Cavalerie*, no. 990, April 13, 1903, "fl. rouges, odorantes" (holotype; photo. in A. A.); Gan-chouen, Hin-y-fou, *J. Cavalerie*, nos. 3927, 3942, June 1912.

This peculiar Rose belongs apparently near *R. laevigata*, but differs in the less prickly and bristly branchlets and peduncles, in the adnate stipules and the red flowers; it probably is a hybrid of this species and of *R. chinensis* from which it is easily distinguished by the 3-foliolate leaves and the bristly receptacle, pedicels and branchlets. Cavalerie's nos. 3927, 3942 designated by Léveillé in his herbarium as *R. lucidissima* var. lack the bristles and represent obviously a form approaching *R. chinensis*, but differing in the 3-foliolate leaves with more coriaceous leaflets. *Rosa lucidissima* is very similar to \times *R. anemonoides* Rehd. (in Jour. Arnold Arb. III. 13. 1921), supposed to be a hybrid between *R. laevigata* and *R. odorata*; it differs from *R. lucidissima* chiefly in the larger pink flowers and in the stipules being adnate only about one half their length.

Rosa odorata Sweet, Hort. Suburb. Lond. 119 (1818).—Rehder & Wilson in Sargent, Pl. Wilson. II. 338 (1915).—Léveillé, Cat. Pl. Yun-Nan, 235 (1917)—Byhouwer in Jour. Arnold Arb. XI. 93 (1929).

Rosa gechouitangensis Léveillé in Fedde, Rep. Spec. Nov. XI. 299 (1912).

Rosa oulengensis [sic] Léveillé, l. c. (1912).—Willmott, Gen. Rosa, II. 523, t. (1914).

Rosa tongtchouanensis Léveillé in Fedde, Rep. Spec. Nov. XI. 300 (1912).—Willmott, Gen. Rosa, II. 523, t. (1914).

CHINA. Y u n n a n: Ge-choui-tang, à flancs des coteaux calcaires, 2450 m., *E. E. Maire*, April 1911, "Rose thé semidouble, à long rameaux" (holotype of *R. gechouitangensis*; photo. in A. A.); Ou-long, haies des tertres, 2500 m., *E. E. Maire*, April 1911, "petit rosier épineux; fl. roses" (holotype of *R. oulengensis*; photo. in A. A.); haies de Tong-tchouan, alt. 2500 m., *E. E. Maire*, April 1911, "rosier de Bengale; fl. roses" (syntype of *R. tongtchouanensis*); haies de La-kou, alt. 2400 m., *E. E. Maire*, March 1911 "rosier épineux, à long rameaux; fl. blanches doubles, inodores" (syntype of *R. tongtchouanensis*; photo. in A. A.).

The three species of Léveillé's cited above are all double-flowered forms of *R. odorata* and therefore must be either cultivated or escaped from cultivation.

Rosa odorata var. *gigantea* (Collet) Rehder & Wilson in Sargent, Pl. Wilson. II. 338 (1915).—Léveillé, Cat. Pl. Yun-Nan, 235 (1917).—Byhouwer in Jour. Arnold Arb. XI. 94 (1929).

Rosa Duclouxii Léveillé in herb. ex Rehder & Wilson in Sargent, Pl. Wilson. II. 339 (1915) et ex Léveillé, Cat. Pl. Yun-Nan, 235 (1917), pro synonym. *R. odoratae* var. *giganteae*.

CHINA. Y u n n a n: environs de Yun-nan-sen, dans la mont., bord des ruisseaux, *F. Ducloux*, March 28, 1897, "grande liane sarmenteuse; gr. fl. blanches" (holotype of *R. Duclouxii*; photo. in A. A.).

Rosa acicularis Lindley, Monog. 44, t. 8 (1920).

Rosa acicularis var. *Gmelini* (Bge.) C. A. Meyer, in Mém. Acad. Sci. St. Pétersb. sér. 6, VI. 17 (Ueber Zimmtros.) (1847).—Nakai in Tokyo Bot. Mag. XXX. 241 (1916); Fl. Sylv. Kor. VII. 37, t. 10 (1918).

Rosa Fauriei Léveillé in Fedde, Rep. Spec. Nov. VII. 199 (1909), quoad *Faurie*, no. 99.

Rosa Taqueti Léveillé in Fedde, Rep. Spec. Nov. VII. 199 (1909), pro parte, quoad specimen fructibus carens.

Rosa Korsakoviensis Léveillé in Fedde, Rep. Spec. Nov. X. 378 (1912).—Willmott, Gen. Rosa, II. 517, t. (1914).

Rosa acicularis var. *Taquetii* Nakai in Tokyo Bot. Mag. XXX. 241 (1916) et Fl. Sylv. Kor. VII. 38, t. 11 (1918) pro parte, synonym. citato exclud.

KOREA: secus vias regionis interioris, *U. Faurie*, no. 99, Sept. 4, 1901 (syntype of *R. Fauriei*; photo. in A. A.); Hallaisan, *E. Taquet* no. 102, Oct. 1907 (in part, as to branch without fruit; syntype of *R. Taqueti*; photo. in A. A.); in sepibus Hallaisan, 1700 m., *E. Taquet*, no. 774, Sept. 7, 1908, et Hallaisan, 1700 m., sed in horto missionis plantata, *E. Taquet*, no. 4228 May 10, 1910 (both as *R. Taqueti* in herb. Léveillé). Saghalin: circa Korsakof, *U. Faurie*, no. 570, Aug. 1908 (holotype of *R. Korsakoviensis*).

The type of *R. Fauriei* is *Faurie's* no. 328 which represents *R. Maximowicziana* Reg. The type of *Rosa Taqueti* is identical with *R. Wichuraiana*; the type specimen, *Taquet's* no. 102, consists of three branches, one with fruits on which apparently the description is based (see under *R. Wichuraiana* p. 312) and which represents *R. Wichuraiana* and two sterile specimens which belong to *R. acicularis*; the only part of the description which is clearly applicable to the two latter specimens is "caules niger et lucidus," the rest applies to *R. Wichuraiana* or both. Besides the type there are two other specimens, *Taquet's* no. 774 and 4228 labeled *R. Taqueti* in Léveillé's handwriting which both belong to *R. acicularis*, but are not cited with the original description. Apparently Léveillé later became confused as to the real identity of his *R. Taqueti* and applied the name to the wrong species. The same mistake was made by Nakai and therefore his name though meant for a form of *R. acicularis*, becomes technically according to the name-bringing

synonym, a synonym of *R. Wichuraiana*. The form distinguished as var. *Taquetii* by Nakai represents a form devoid of bristles.

Rosa Marretii Léveillé in Fedde, Rep. Spec. Nov. VIII. 281 (1910).—Willmott, Gen. Rosa, II. 495, t. (1914).—Nakai in Tokyo Bot. Mag. XXXVI. 63 (1922).

Rosa rubrostipullata Nakai in Tokyo Bot. Mag. xxx. 242 (1916); Fl. Sylv. Kor. VII. 40, t. 13 (1918).

SAGHALIN: circa Korsakof, *U. Faurie*, no. 571, Sept. 10, 1908 (holotype of *R. Marretii*; isotype in A. A.), no. 572, Aug. 1908 (as *R. Marretii* in herb. Léveillé; as *R. sp.* in A. A.).

Faurie's no. 572 not cited with the original description is in bloom; it has like the specimen of no. 571 in the herbarium of the Arnold Arboretum slightly broader leaflets and lacks the peculiar ascending prickles at the base of the branchlets present in the type specimen. *Rosa Marretii* differs from *R. davurica* Pall. chiefly in the green, glabrous or glabrescent and not glandular under side of the leaflets and in the ascending, not recurved prickles.

Rosa Davidi Crép. var. *elongata* Rehder & Wilson in Sargent, Pl. Wilson. II. 323 (1915).—Byhouwer in Jour. Arnold Arb. x. 99 (1929).

Rosa Parmentieri Léveillé in Fedde, Rep. Spec. Nov. XIII. 339 (1914); Cat. Pl. Yun-Nan, 235 (1917).

CHINA. Y u n n a n: brousse de Io-chan, 3400 m., *E. E. Maire*, June 1913, "rosier épineux, buissonnant; fl. blanches" (holotype of *R. Parmentieri*; photo. in A. A.).

Rosa sertata Rolfe in Bot. Mag. CXXXIX. t. 8473 (1913).—Byhouwer in Jour. Arnold Arb. x. 100 (1929).

Rosa iochanensis Léveillé in Fedde, Rep. Spec. Nov. XIII. 339 (1914); Cat. Pl. Yun-Nan, 234 (1917).

CHINA. Y u n n a n: Mont Io-chan, alt. 3300 m., *E. E. Maire*, June 1913 "rosier à rameaux fins, épineux, buissonnant, haut 0.80 m.; fl. rouges" (holotype of *R. iochanensis*; photo. in A. A.).

Rosa omeiensis Rolfe in Bot. Mag. CXXXVIII. t. 8471 (1912).—Rehder & Wilson in Sargent, Pl. Wilson. II. 331 (1915)—Léveillé, Cat. Pl. Yun-Nan, 235 (1917).—Byhouwer in Jour. Arnold Arb. x. 102 (1929).

Rosa Sorbus Léveillé in Fedde, Rep. Spec. Nov. XIII. 338 (1914).

Rosa sericea f. *aculeata* Focke apud Léveillé, Cat. Pl. Yun-Nan, 235 (1917), nomen.

Rosa sericea f. *eglandulosa* Léveillé, l. c. (1917), nomen.

Rosa sericea f. *inermis* Léveillé, l. c. (1917), nomen.

CHINA. Y u n n a n: brousse à mi-mont du Io-chan, alt. 3300 m., *E. E. Maire*, June 1913, "grand rosier épineux buissonnant, 2 m.; fl. blanches," (holotype of *R. Sorbus*; photo. in A. A.).

Rosa Mairei Léveillé in Fedde, Rep. Spec. Nov. xi. 299 (1912); Cat. Pl. Yun-Nan, 235 (1917).—Willmott, Gen. Rosa, ii. 521 (1914).—Rehder & Wilson in Sargent, Pl. Wilson. ii. 343 (1915).—Byhouwer in Jour. Arnold Arb. x. 103 (1929).

CHINA. Y u n n a n: collines arides autour de Tong-chouan, 2600 m., *E. E. Maire*, April 1911, "rosier buissonnant, à fortes épines triangulaires; fl. blanches" (holotype; photo. in A. A.).

Prunus Persica (L.) Batsch, Beytr. Entwickl. Gesch. Naturr. 30 (1801).—Léveillé in Mem. Acad. Ci. Art. Barcelona, ser. 3, XII. 560 (Cat. Pl. Kiang-Sou, 20) (1916).

Prunus Persica var. *lasiocalyx* Léveillé & Vaniot in Bull. Bot. Soc. France, LV. 58 (1908); in Mem. Acad. Ci. Art. Barcelona, ser. 3, XII. 560 (Cat. Pl. Kiang-Sou, 20) (1916).

Prunus daemonifuga Léveillé & Vaniot in Bull. Bot. Soc. France, LV. 58 (1908).

CHINA. K i a n g s u: Song-kiang-fan, *Ch. d'Argy* (5 specimens, syntypes of *P. Persica* var. *lasiocalyx*; photo. in A. A.); Tao-chow; Tao-tze-chow, *Ch. d'Argy* (holotype of *P. daemonifuga*; photo. in A. A.).

Prunus persica var. *lasiocalyx* seems scarcely different from the type and *P. daemonifuga* was reduced to synonymy by Léveillé himself in 1916 (l. c.).

Prunus Persica var. *longistyla* Léveillé in Bull. Bot. Soc. France, LV. 58 (1908); in Mem. Acad. Ci. Art. Barcelona, ser. 3, 560 (Cat. Pl. Kiang-Sou, 20) (1916).

CHINA. K i a n g s u: without locality, *Ch. d'Argy* ? (holotype; photo. in A. A.).

On account of its long style this variety resembles *P. kansuensis* Rehd. which differs, however, in its slenderer branches, glabrous winter-buds, less pubescent sepals glabrous inside, white or nearly white, rather smaller flowers and is only known as a wild plant from the Kansu-Tibetan frontier at altitudes of 6000–8000 ft.; it also differs markedly from *P. Persica* in its stone not being pitted. Léveillé's variety is apparently a form of the cultivated Peach, though the length of the style is an unusual character in this species.

Prunus japonica var. **Nakaii** (Lévl.) Rehder in Jour. Arnold Arb. III. 29 (1921).

Prunus Nakaii Léveillé in Fedde, Rep. Spec. Nov. VII. 198 (1909), "*P. Nakai*".—Koehne in Sargent, Pl. Wilson. I. 267 (1912).—Nakai, Fl. Sylv. Kor. v. 36, t. 22 (1916).

KOREA: Ouen-san, in lacunis montium, *U. Faurie*, no. 334, July 1906 (holotype of *P. Nakai*; isotype in A. A.).

Prunus discadenia Koehne in Sargent, Pl. Wilson. I. 200 (1912).

Prunus myrtacea Léveillé in Bull. Géog. Bot. XXV. 45 (1915); Cat. Pl. Yun-Nan, 234 (1917).

CHINA. Y u n n a n: brousse des montagnes à Pe-long-tsin, 3200 m., *E. E. Maire*, June 1912 (holotype of *P. myrtacea*; photo. in A. A.).

Prunus odontocalyx Léveillé in Bull. Géog. Bot. xxv. 45 (1915); Cat. Pl. Yun-Nan, 234 (1917).

CHINA. Y u n n a n: haut plateau de Ta-hai-tse, 3200 m., *E. E. Maire*, May 1912 (holotype; merotype in A. A.).

This species I have not been able to identify with any previously described *Prunus*. It apparently belongs in Koehne's Series Oxyodonta of his subsection Ceraseidos, but differs from the species known to me in its longer and narrower leaves (not yet fully unfolded) quite glabrous except a fugaceous silky pubescence along the midrib and in the 2-3-flowered racemes on a short peduncle 3-5 mm. long with narrow oblong-lanceolate caducous bracts to 1 cm. long.

Prunus Padus Linnaeus, Spec. Pl. 473 (1753).—Nakai, Fl. Sylv. Kor. v. 18, t. 3 (1916).

Prunus Fauriei Léveillé in Fedde, Rep. Spec. Nov. vii. 198 (1909).

KOREA. Q u e l p a e r t: Hallaisan, 1500 m., *U. Faurie*, no. 1549, June 17, 1907, "rara, e basi ramosa, 2 m., alta 5-6 m. lata" (holotype of *P. Fauriei*; photo. in A. A.).

Nakai (op. cit. 15) cites *P. Fauriei* as a synonym under *P. Buergeri* Miq. (= *P. Buergeriana* Miq.), but under *P. Padus* he cites "*P. Fauriei* Lévl. in litt. fide Taquet." Koehne (in Fedde, Rep. Spec. Nov. xii. 135. 1913) states that *P. Fauriei* hardly differs from *P. Padus*, to which I agree with the original specimen from the Herbarium Léveillé before me.

Prunus Padus L. var. *seoulensis* (Lévl.) Nakai, Fl. Sylv. Kor. v. 19 (1916).

Prunus seoulensis Léveillé in Fedde, Rep. Spec. Nov. vii. 198 (1909).

KOREA: Namsan Seoul, *U. Faurie*, no. 331, July 1906 (holotype of *P. seoulensis*; isotype in A. A.).

Koehne (in Fedde, Rep. Spec. Nov. xii. 134. 1913) states that *P. seoulensis* hardly differs from typical *P. Padus* and that it possibly belongs to var. *commutata* Dipp.

Prunus pubigera (Schneid.) Koehne in Sargent, Pl. Wilson. i. 67 (1911).

Prunus (*Padus*) *Vanioti* Léveillé in Bull. Géog. Bot. xxv. 45 (1915); Cat. Pl. Yun-Nan, 234 (1917).

CHINA. Y u n n a n: flanc aride des montagnes à Ma-kong, 2700 m., *E. E. Maire*, April 1912 (holotype of *P. Vanioti*; merotype in A. A.).

Prunus Maackii Rupr. var. **diamantina** (Lévl.) Koehne in Fedde, Rep. Spec. Nov. XII. 134 (1913).

Prunus diamantina Léveillé in Fedde, Rep. Spec. Nov. VII. 198 (1909).

KOREA: in Monte des Diamants, *U. Faurie*, no. 332 (holotype of *P. diamantina*).

Nakai (Fl. Sylv. Kor. v. 17. 1916) refers *P. diamantina* to *P. Maackii* as a synonym without recognizing it as a variety.

LEGUMINOSAE

Albizzia kalkora (Roxb.) Prain in Jour. As. Soc. Bengal, LXVI. 511 (1897).

Albizzia Esquirolii Léveillé, Fl. Kouy-Tchéou, 224 (1914).—**Synon. nov.**

CHINA. K w e i c h o u: Tou-chan, *J. Cavalerie* in herb. Bodinier, no. 2634, June 1899 (ex Léveillé; syntype of *A. Esquirolii*); same locality, *J. Esquirol*, no. 431, June 1905 (syntype of *A. Esquirolii*; merotype in A. A.).

Acacia Delavayi Franchet, Pl. Delavay. 194 (1890).

Acacia Cavaleriei Léveillé, Fl. Kouy-Tchéou, 222 (1914), nomen.—**Synon. nov.**

CHINA. K w e i c h o u: Mou-you-se, *J. Cavalerie*, no. 2041, June 1904 "tige lianeuse court sur les murs" (holotype of *A. Cavaleriei*; photo. in A. A.).

I have not seen the type of *A. Delavayi*, but Cavalerie's specimen which is in bloom seems to agree well with Delavay's description except that the only leaf present has 6 pairs of pinnae and the leaflets are up to 1 cm. long; Franchet describes also the fruit, but Cavalerie's specimen has only flower-heads mostly in bud.

The original description of *Acacia Cavaleriei* I have not been able to locate; possibly Léveillé did not publish a description.

Bauhinia touranensis Gagnepain in Lecomte, Not. Syst. II. 181 (March 25, 1912); in Lecomte, Fl. Gén. Indo-Chine, II. 134, fig. 14, 8-13 (1913).—Léveillé, Fl. Kouy-Tchéou, 227 (1914).

Bauhinia Rocheri Léveillé in Fedde, Rep. Spec. Nov. XI. 31 (July 1, 1912).

CHINA. K w e i c h o u: forêt de Siang-chou, alt. 800 m., *J. Esquirol*, no. 2131, May 20, 1910 (holotype of *B. Rocheri*; photo. in A. A.); Houakiang, *J. Cavalerie*, no. 2128, June 1904 (ex Léveillé, Fl. Kouy-Tchéou).

Bauhinia Rocheri was referred to *B. touranensis* as a synonym by Gagnepain in 1913 (l. c.).

Bauhinia densiflora Franchet, Pl. Delavay. 191 (1890).—Léveillé, Fl. Kouy-Tchéou, 227 (1914).

Bauhinia Cavaleriei Léveillé in Fedde, Rep. Spec. Nov. XI. 31 (1912).

CHINA. K w e i c h o u: Lo-fou, *J. Cavalerie*, no. 3676, Aug. and Oct. 1908, 1909 (holotype; photo. in A. A.); Pin-fa, *J. Cavalerie*

no. 659; descente du fleuve, *J. Esquirol*, nos. 507, 890 (ex Lévillé, Fl. Kouy-Tchéou).

Bauhinia Cavaleriei was referred by Lévillé as a synonym to *B. densiflora* in his Flore du Kouy-Tchéou.

Bauhinia yunnanensis Franchet, Pl. Delavay. 190 (1890).

Bauhinia altefissa Lévillé, Fl. Kouy-Tchéou, 226 (1914); Cat. Pl. Yun-Nan, 152 (1916).—**Synon. nov.**

CHINA. K w e i c h o u: Mou-you-se, *J. Cavalerie*, no. 3908, June 1912 (syntype of *B. altefissa*; photo. in A. A.); without locality, *J. Esquirol*, no. 511 (syntype of *B. altefissa*; photo. in A. A.).

Bauhinia altefissa agrees perfectly with *B. yunnanensis*, but Esquirol's no. 3056 "derrière le camp de Lo-hou, Juillet 1911" cited by Lévillé under the original description of *B. altefissa* does not belong here; the specimen is sterile and probably belongs to *B. densiflora* Franch.

Bauhinia aurea Lévillé in Bull. Soc. Bot. France, LIV. 368 (1907); Fl. Kouy-Tchéou, 226 (1914).

CHINA. K w e i c h o u: rochers et bois des environs de Lo-fou, *J. Cavalerie*, no. 2614, Nov. 1905 (holotype; photo. in A. A.); Pin-fa, *J. Cavalerie*, no. 2614; Lao-ten, *E. Bodinier*, no. 43; Ou-la-gay, *J. Seguin*; confluent des deux rivières de Lo-kouy; *J. Esquirol*, no. 3226, 1898–1912. (All enumerated by Lévillé, Fl. Kouy-Tchéou.)

This species resembles in the size, tomentum and general outline of the leaf *B. Vahlii* Wight et Arn., but differs in the somewhat acutish not rounded lobes, and in the narrow, not open, basal sinus; also the pod which I have not seen agrees according to the description with that of *B. Vahlii*. I have not seen the additional specimens cited in the Flore du Kouy-Tchéou. A similar form also only in fruit has been collected in Kweichou by Y. Tsiang (no. 7289) near Gan-wu, Lo-hu on the Kwangsi border, but the leaves are subcordate to nearly truncate at base, while the lobes are acutish.

Pterolobium punctatum Hemsley in Jour. Linn. Soc. XXIII. 207 (1887).

Prosopis Esquirolii Lévillé, Fl. Kouy-Tchéou, 242 (1914).—**Synon. nov.**

CHINA. K w e i c h o u: de Tong-fong-tcheou à Sy-pou-ho, *J. Esquirol*, no. 166, Aug. 1904 (holotype of *Prosopis Esquirolii*; merotype in A. A.).

Sophora japonica Linnaeus, Mant. I. 68 (1767).—Lévillé, Fl. Kouy-Tchéou, 243 (1914); Cat. Pl. Yun-Nan, 161 (1916).

Ormosia Esquirolii Lévillé, Fl. Kouy-Tchéou, 240 (1914).—**Synon. nov.**

Sophora Mairei Lévillé in Bull. Géog. Bot. XXV. 48 (1915); non *S. Mairei* Pamp. (1910).—**Synon. nov.**

CHINA. K w e i c h o u: Lao-ouang-tchai, *J. Esquirol*, no. 3840, July 1912, "arbre 6 m.; fl. blanches" (holotype of *Ormosia Esquirolii*; merotype in A. A.). Y u n n a n: plaine de Tong-tchouan, alt. 2500 m., *E. E. Maire*, Aug. [1911-14], "gros et grand arbre; fleurs blanches inodores" (holotype of *S. Mairei*; merotype in A. A.).

Sophora glauca De Candolle in *Ann. Sci. Nat. ser. 1, iv.* (1824) 98 (1825).—Gagnepain in *Lecomte, Not. Syst. III.* 117 (1915).—Léveillé, *Cat. Pl. Yun-Nan*, 161 (1916).

Indigofera Mairei Léveillé in *Fedde, Rep. Spec. Nov. XII.* 190 (1913).

CHINA. Y u n n a n: couteaux calcaires arides, derrière La-kou, 2450 m., *E. E. Maire*, June 1911, "fleurs violettes" (syntype of *Indigofera Mairei*; photo. in A. A.); plaine de Kiao-kia, alt. 400 m., *E. E. Maire*, July 1911, "fleurs violettes" (syntype of *Indigofera Mairei*; photo. in A. A.).

Indigofera Mairei has been identified already by Gagnepain (l. c.) with *Sophora glauca*.

Sophora glauca var. *albescens* Rehder in *Sargent, Pl. Wilson. III.* 447 (1917).

Sophora Cavaleriei Léveillé, *Fl. Kouy-Tchéou*, 242 (1914).—**Synon. nov.**

CHINA. K w e i c h o u: Hin-y-fou, *J. Cavalerie*, no. 3909, June 1912 (holotype of *S. Cavaleriei*; photo. in A. A.).

Cavalerie's no. 3909 is somewhat less pubescent than *S. glauca* usually is. Var. *albescens* is apparently a mere color-form; the differences in the shape of the leaflets given in the original description do not seem to hold. Both forms, with violet and with yellowish white flowers, occur in Szechuan as well as in Yunnan.

Maackia Fauriei (Lévl.) Takeda in *Not. Bot. Gard. Edinb. VIII.* 101, t. 27, fig. 39-43 (1913).

Cladrastis Fauriei Léveillé in *Fedde, Rep. Spec. Nov. VII.* 230 (1909).

KOREA. Q u e l p a e r t: Hallaisan, 1200 m., *U. Faurie*, no. 1692, Aug. 1907 (holotype of *C. Fauriei*; isotype in A. A.).

Indigofera stachyodes Lindley in *Bot. Reg. I.* t. 14 (1843).

Indigofera Bodinieri Léveillé in *Fedde, Rep. Spec. Nov. XII.* 190 (1913).—Gagnepain in *Lecomte, Not. Syst. III.* 117 (1915), pro *synon. Indigoferae dosua* Buch.-Ham.

Indigofera Dosua Buch.-Ham. var. *stachyodes* (Lindl.) Léveillé, *Fl. Kouy-Tchéou*, 234 (1914).

CHINA. K w e i c h o u: dans la montagne aux environs de Ganpin, *Léon Martin et E. Bodinier*, no. 1822, Sept. 24, 1897 (syntype of *I. Bodinieri*; photo. in A. A.); Tsin-gay à Tong-mou-lin, *E. Bodinier*, no. 1822 bis, June 24, 1899 (syntype of *I. Bodinieri*; photo. in A. A.).

Indigofera Dosua Buch.-Ham. listed by Léveillé in his *Cat. Pl. Yun-Nan* (p. 156) probably also refers to *I. stachyodes* Lindl. (*I.*

Dosua var. *tomentosa* Bak.) and not to typical *I. dosua* Buch.-Ham., of which I have seen no specimens from Yunnan.

Indigofera Esquirolii Léveillé in Fedde, Rep. Spec. Nov. XII. 190 (1913); Fl. Kouy-Tchéou 234 (1914).—Gagnepain in Lecomte, Not. Syst. III. 117 (1915).

CHINA. K w e i c h o u: Ouang-mou, *J. Esquirol*, no. 48, May 25, 1904 (holotype; photo. in A. A.); Tou-chan; Tsin-gay, bord de la rivière de Cha-téou-tche, *J. Cavalerie* in Herb. Bodinier, no. 2374, Nov. 1898 (cited in Fl. Kouy-Tchéou, l. c.).

This species seems nearest to *I. Dielsiana* Craib, but differs in its densely pubescent larger leaflets up to 3 cm. long, in the larger racemes up to 12 cm. long and shorter calyx-tube with longer lobes. Gagnepain (l. c.) also states that it seems to be a new species.

Indigofera Vanioti Léveillé, Cat. Pl. Yun-Nan, 157 (1916), excl. specim. e Lou-pou.

Fruticulus ramosus, 40 cm. altus; ramuli ut pedunculus et rhachis racemi pilis mediofixis albidis et sparsius glandulis fulvis conspersi. Folia 7–9-foliolata, cum petiolo 5–8 mm. longo ut rhachis sparse pilis mediofixis et glandulis paucis instructo ad 3 cm. longa; stipulae 2 mm. longae; foliola opposita, oblonga vel obovato-oblonga, 6–9 mm. longa et 2–3.5 mm. lata, vel interdum in folius minoribus ovalia vel obovata, apice rotundata et mucronulata, basi rotundata vel late cuneata, supra glabra vel interdum pilis mediofixis paucis instructa et intense viridia, subtus pallida et pilis mediofixis conspersa, nervis obsoletis, petiolulo ad 1 mm. longo suffulta; stipellae saepe petiolulum fere aequantes. Racemi ad 5 vel 6 cm. longi, pedunculo 5–10 mm. longo suffulti; bractea deciduae at 2 mm. longae; pedicelli 1 mm. longi ut calyx pilis mediofixis obtecti; flores violacei; calycis tubus circiter 1 mm., lobus infimus subulatus 1.75 mm. longus; vexillum 6–7 mm. longum et 3.5–4 mm. latum, apice rotundatum, minute mucronulatum, extus dense pubescens; alae 6 mm. longae et 1.5 latae, superne ciliolatae, carina 6.5 mm. longa superne extus pubescens, auriculis quam unguiculi multo brevioribus; ovarium glabrum.

CHINA. Y u n n a n: pâturages du mont Tsouan-tien-po, alt. 2700 m., *E. E. Maire*, May [1911–12] “fl. violettes” (syntype of *I. Vanioti*: merotype in A. A.).

Léveillé enumerates under his *I. Vanioti* two specimens. He compares his new species with *I. Hosiei* and *I. lenticellata* and states that it differs “a primo stipellis conspicuis; a secundo lenticellis nullis. Flores violacei, 0.40 cm. alta.” This is all the description he gives. The two specimens Léveillé cites are not identical, and

only one, the specimen cited above, has stipels which could be called conspicuous, the other specimen from Lou-pou has no noticeable stipels and I consider it identical with *I. szechuensis* Craib. I therefore take the specimen from Tsouan-tien-po as the type of Léveillé's species, though the label is without name, and have given above a description of *I. Vanioti* based on this specimen. It differs from *I. szechuensis* and from *I. Hosiei* and *I. lenticellata* at the first glance by the leaflets being glabrous or nearly so above. It seems nearest related to *I. Silvestrii* Pamp. which is readily distinguished according to the description by the smaller flowers with the wings exceeding the standard and the white-pubescent ovary; I have seen no specimen of *I. Silvestrii*.

Indigofera szechuensis Craib in Notes Bot. Gard. Edinb. VIII. 62 (1913).

Indigofera Vanioti Léveillé, Cat. Pl. Yun-Nan, 157 (1916), quoad specimen e Lou-pou.

CHINA. Y u n n a n: vallée de Lou-pou, alt. 3000 m., *E. E. Maire*, June [1911-12] "fl. violettes" (syntype of *I. Vanioti*; merotype in A. A.).

This specimen agrees well with the type of *I. szechuensis* except that the leaflets are somewhat narrower and number only 7-9. It bears the name *I. Vanioti* in Léveillé's handwriting on the label, while the specimen which I consider the type of *I. Vanioti* has no name on its label, but both specimens were placed in the cover of *I. Vanioti* in Léveillé's herbarium.

Indigofera reticulata Franchet, Pl. Delavay. 153 (1889).

Indigofera Craibiana Léveillé, Cat. Pl. Yun-Nan, 155 (1916).—Synon. nov.

CHINA. Y u n n a n: monticule calcaire de Kin-tchong-chan, alt. 2550 m., *E. E. Maire*, Aug. [1911-12] (syntype of *I. Craibiana*; merotype in A. A.); pâturages de montagnes à Tong-tchouan, alt. 2600 m., *E. E. Maire* (ex Léveillé; syntype of *I. Craibiana*).

Indigofera atropurpurea Buchanan-Hamilton apud Roxburgh, Hort. Bengal. 57 (1814), nomen; Fl. Ind. III. 381 (1832).—Léveillé, Fl. Kouy-Tchéou, 234 (1914).

Indigofera Cavaleriei Léveillé in Fedde, Rep. Spec. Nov. XII. 190 (1913).—Gagnepain in Lecomte, Not. Syst. III. 117 (1914), pro synonym. *I. atropurpureae*.

CHINA. K w e i c h o u: Tsin-gai, bord du ruisseau, *J. Cavalerie*, no. 1191, July 1903 (holotype; photo. in A. A.).

Indigofera Cavalerie was identified with *I. atropurpurea* in 1914 by Gagnepain (l. c.) and in the same year enumerated by Léveillé in his Flore du Kouy-Tchéou (l. c.) as *I. atropurpurea*, but without citation of *I. Cavaleriei* as a synonym, though its type, Cavalerie no. 1191, is cited with the addition of Cavalerie no. 2672.

Millettia Dielsiana Harms in Bot. Jahrb. xxix. 412 (1900).

Millettia Blinii Léveillé, Fl. Kouy-Tchéou, 238 (1914).—Synon. nov.

Millettia Bodinieri Léveillé, l. c.—Synon. nov.

Millettia Dunniana Léveillé, Cat. Pl. Yun-Nan, 159 (1916).—Synon. nov.

Millettia fragrantissima Léveillé, Fl. Kouy-Tchéou, 239 (1914).—Synon. nov.

CHINA. K w e i c h o u: Tang-tchang, *J. Esquirol*, no. 1568, June 1909 (holotype of *M. Blinii*; photo. in A. A.); Gan-pin, Kouy-yang, *L. Martin* in herb. E. Bodinier, no. 2391, June 1896 and 1897, "branches en liane, trainant sur les rochers, fleurs pourpres (Gay-téou)" (holotype of *M. Bodinieri*; photo. in A. A.); Tsin-gai, *J. Cavalerie*, no. 1133, July 14, 1903, "fl. rouge-rose à l'ext., sens délicieux" (holotype of *M. fragrantissima*; photo. in A. A.). Y u n n a n: brousse, rives des fleuve Bleu, alt. 400 m., *E. E. Maire*, July 1912, "fleurs roses" (holotype of *M. Dunnii*; photo. in A. A.).

The specimens cited above which are all flowering belong apparently to the variable *M. Dielsiana* which varies in the shape and in the pubescence of the leaves; in *M. fragrantissima* and *M. Blinii* the leaves are glabrous beneath, in *M. Bodinieri* and *M. Dunniana* pubescent.

Millettia Gentiliana Léveillé, Fl. Kouy-Tchéou, 239 (1914).

CHINA. K w e i c h o u: Pin-fa, descente de Kouan-lin, *J. Cavalerie*, no. 644, June 10, 1904 (holotype; merotype in A. A.).

This species seems near *M. cinerea* Benth., but as the latter species has not yet been recorded from Kweichou, I hesitate to identify *M. Gentiliana*, which is only represented by a fruiting specimen, definitively with *M. cinerea*.¹

Caragana Franchetiana Komarov in Act. Hort. Bot. Petrop. xxix. 300, t. 13A (1908).

Caragana Komarovi Léveillé, in Bull. Géog. Bot. xxv. 49 (1915).—Synon. nov.

CHINA. Y u n n a n: rochers des montagnes de Lou-pou et Tong-tchouan, alt. 2800-3200 m., *E. E. Maire*, July 1912, "arbuste épineux buissonnant, fleurs papil. jaunes" (holotype of *C. Komarovi*; merotype in A. A.).

Caragana Komarovi is an extreme form of the variable *C. Franchetiana* with strong spines up to 6 mm. long and with less pubescent and more numerous leaflets (up to 9 pairs).

Desmodium racemosum (Thunb.) De Candolle, Prodr. II. 337 (1825).—Schindler in Fedde, Rep. Spec. Nov. Beih. XLIX. 227 (Desmodiinae) (1928).

Desmodium Bodinieri Léveillé, Fl. Kouy-Tchéou, 232 (1914).

¹ *Millettia Esquirolii* Léveillé, Fl. Kouy-Tchéou, 239 (1914) is not a *Millettia*, from which it differs in its alternate estipellate leaflets and racemose flowers; it may belong to *Pongamia* or *Derris*, but in the absence of fruits its position remains doubtful.

CHINA. K w e i c h o u: Kouy-yang; mont. du Collège; Gan-pin; *E. Bodinier*, no. 1753 (ex Léveillé; syntypes; photo. in A. A.).

Of *D. Bodinieri* there is at present but one specimen in the Herbarium Léveillé, without collector or locality, only with a label bearing the name "*D. Bodinieri* Lévl." in Léveillé's handwriting. In a note appended to the genus in the Flore du Kouy-Tchéou Léveillé states that the localities given under the species of this genus are incomplete or lacking, since the specimens were at that time in the hands of Dr. Diels. The fruit of Bodinier's specimen is pubescent, not glabrous as described by Thunberg and De Candolle.

Desmodium cinerascens Franchet, Pl. Delavay. 174 (1890).

Desmodium Esquirolii Léveillé, Fl. Kouy-Tchéou, 232 (1914); Cat. Pl. Yun-Nan, 154 (1916).—**Synon. nov.**

CHINA. K w e i c h o u: without locality, *J. Cavalerie*, no. 3274 (ex Léveillé; holotype of *D. Esquirolii*); without locality, *J. Cavalerie*, no. 3998 (in herb. Léveillé under *D. Esquirolii*). Y u n n a n: mont. de Ta-choui-tsin, alt. 2300 m., *E. E. Maire*, June [1911-12], "arbuste, feuil. caduques, fl. violettes" (in herb. Léveillé under *D. Esquirolii*).

On the sheet of Maire's Yunnan specimen there are two specimens of which that with less pubescent leaves may not belong to *D. cinerascens*. *Desmodium cinerascens* seems to vary greatly in the amount of pubescence; all the specimens in this herbarium referred by Schindler to *D. cinerascens* are much more pubescent than Franchet's type.

Desmodium gyroides (Roxb.) De Candolle, Prodr. II. 326 (1825).

Desmodium oxalidifolium Léveillé, Fl. Kouy-Tchéou, 233 (1914), pro parte.—**Synon. nov.**

CHINA. K w e i c h o u: Lo-fou, couteaux, alt. 600 m., *J. Esquirol*, no. 2205, Sept. 1910, "couleur violette" (syntype of *D. oxalidifolium*, in part; photo. in A. A.).

The other specimen cited by Léveillé under *D. oxalidifolium* belongs to the following species.

Desmodium Griffithianum Benth in Junghuhn, Pl. Junghuhn. 222 (1852).—Schindler in Fedde, Rep. Spec. Nov. Beih. XLIX. 227 (Desmodiinae) (1928).

Desmodium oxalidifolium Léveillé, Fl. Kouy-Tchéou, 233 (1914), pro parte.

CHINA. K w e i c h o u: Tong-kia-tchao; Tsin-tchen, *E. Bodinier*, no. 1731 (ex Léveillé; syntype of *D. oxalidifolium*); without locality, "no. 42" (in Herb. Léveillé sub *D. oxalidifolium*; photo. in A. A.).

Bodinier's no. 1731 is not now in the Herb. Léveillé but there is a specimen without locality and collector, labeled *D. oxalidifolium* in

Léveillé's handwriting, which agrees with Léveillé's description, while the other syntype cited under the preceding species does not fit the description.

Desmodium concinnum De Candolle, Prodr. II. 335 (1825).

Desmodium barbigerum Léveillé, Pl. Cat. Yun-Nan, 153 (1916).—**Synon. nov.**

CHINA. Y u n n a n: pâtures des couteaux arides à Ou-long-mo, alt. 2550, *E. E. Maire*, July [1911–12] “vivace en touffes, mirampante, fl. violettes” (syntype of *D. barbigerum*); pâtures des couteaux à Ma-gan-chan, alt. 2550 m., *E. E. Maire*, Aug. (1911–12), “vivace, couchée” (syntype of *D. barbigerum*; photo. in A. A.).

Maire's specimens differ from the material of *D. concinnum* before me in the darker colored flowers with purple calyx. The plant also seems to differ in its habit; Maire describes it as a procumbent or nearly creeping perennial, while according to the description of the Himalayan plant it is a tall shrub with pendulous branches.

Desmodium gangeticum (L.) De Candolle, Prodr. II. 327 (1825).—Schindler in Fedde, Rep. Spec. Nov. Beih. XLIX. 227 (*Desmodiinae*) (1928).

Desmodium Cavaleriei Léveillé, Fl. Kouy-Tchéou, 232 (1914).

CHINA. K w e i c h o u: without locality, *J. Cavalerie*, no. 3274, (holotype; photo. in A. A.).

Lespedeza Forrestii Schindler in Notes Bot. Gard. Edinb. VIII. 13, t. 8 (1913).

Lespedeza Pampaninii Léveillé in Bull. Géog. Bot. xxv. 48 (1915); Fl. Kouy-Tchéou, 158 (1916).—**Synon. nov.**

CHINA. Y u n n a n: pâturages de Io-chan, alt. 3200 m., *E. E. Maire*, June 1912, “polygonum vivace rampant, fleurs rouges” (holotype of *L. Pampaninii*; merotype in A. A.)

Lespedeza Monnoyeri Léveillé, Cat. Pl. Yun-Nan, 158 (1916).

CHINA. Y u n n a n: terrains arides, collines derrière La-kou, alt. 2400 m., *E. E. Maire*, July 1912, “legum. vivace rampant, fleurs roses” (holotype; merotype in A. A.).

Very distinct with its broadly ovate or almost obcordate leaflets and the rather long-peduncled flowers.

Lespedeza daurica (Laxm.) Schindler in Fedde, Rep. Spec. Nov. XXII. 274 (1926).

Lespedeza trichocarpa Persoon, Syn. Pl. II. 318 (1807).—Schindler in Bot. Jahrb. XLIX. 607 (1913).

Lespedeza Fauriei Léveillé in Fedde, Rep. Spec. Nov. VII. 230 (1909).

KOREA: in herbis Chinnampo, *U. Faurie*, no. 415, Aug. 1906 (holotype of *L. Fauriei*; photo. and isotype in A. A.).

According to notes on the sheet of the type specimen of *L. Fauriei* it was identified as *L. trichocarpa* in 1910 by Pampanini and in 1912 by Schindler; the isotype in this herbarium also was identified in 1912 by Schindler as *L. trichocarpa* and the identification published in 1913 (l. c.).

Lespedeza striata (Thunb.) Hooker & Arnott, Bot. Voy. Beechey, 262 (1841).—Léveillé, Cat. Pl. Yun-Nan, 159 (1916).

Trifolium? *polygonum* Léveillé in Fedde, Rep. Spec. Nov. XII. 282 (1913).

CHINA. Y u n n a n: plaine et montagne a Tche-hai, alt. 2500–2600 m., E. E. Maire, July 1912 (holotype of *Trifolium polygonum*; photo. in A. A.).

Trifolium polygonum was referred to *Lespedeza striata* by Léveillé in 1916 (l. c.).

Campylotropis polyantha (Franch.) Schindler in Fedde, Rep. Spec. Nov. XI. 340 (1912).

Lespedeza Blinii Léveillé in Bull. Bot. Géog. xxv. 48 (1915); Cat. Pl. Yun-Nan, 157 (1916).—**Synon. nov.**

Lespedeza dichromocalyx Léveillé, Fl. Kouy-Tchéou, 236 (1914); Cat. Pl. Yun-Nan, 157 (1916).—**Synon. nov.**

CHINA. K w e i c h o u: monts entre Hin-y-hien et Hin-y-fou, *E. Bodinier*, no. 2279, April 12, 1897 (syntype of *Lespedeza dichromocalyx*; merotype in A. A.); Gan-chouen, *J. Cavalerie*, no. 3997, Aug. 28, 1912 (syntype of *L. dichromocalyx*; merotype in A. A.). Y u n n a n: environs de Yunnan-sen, bords de canaux, des routes, *E. Bodinier*, March 11, 1897 (syntype of *L. dichromocalyx*; merotype in A. A.); commun sur les rives rocheuses du fleuve Bleu à Mong-kou, alt. 500 m., E. E. Maire, April (1911–14) (holotype of *Lespedeza Blinii*; photo. in A. A.).

Campylotropis velutina (Dunn) Schindler in Fedde, Rep. Spec. Nov. XX. 286 (1924).

Millettia Cavaleriei Léveillé, Fl. Kouy-Tchéou, 238 (1914).—**Synon. nov.**

CHINA. K w e i c h o u: Lo-kouen, ouest de Lo-fou, *J. Cavalerie*, no. 2754, Apr. 1906, “fl. blanches” (holotype of *Millettia Cavaleriei*; photo. in A. A.); Lo-fou, *J. Cavalerie*, no. 3683, Apr. 1909, “fl. blanches violacées” and *J. Cavalerie*, no. 1406 (both in cover of *M. Cavaleriei* in herb. Léveillé; duplicates in A. A.).

Dalbergia Esquirolii Léveillé, Fl. Kouy-Tchéou, 230 (1914).

CHINA. K w e i c h o u: Hoang-tsao-po, colline de la pagode, *J. Esquirol*, no. 1351, June 5, 1909 (holotype; photo. in A. A.).

This species seems near *D. Dyeriana* Prain, but differs in the narrow-oblong leaflets 1.5–3 cm. long and 6–9 mm. broad, and narrowed toward the obtuse apex, in the terminal inflorescence and in the calyx being nearly glabrous except the ciliate lobes.

Dalbergia Cavaleriei Léveillé, Fl. Kouy-Tchéou, 230 (1914).

CHINA. K w e i c h o u: Hoa-kiang et descente du même fleuve, *J. Cavalerie*, no. 3918, June 1912 (syntype; photo. in A. A.).

Similar to *D. mimosoides* Franch. and *D. stenophylla* Prain, but easily distinguished by the leaflets being appressed-pubescent on both sides. The same species has been collected in Kweichou also by Handel-Mazzetti (no. 10352).

Derris spec. Léveillé, Fl. Kouy-Tchéou, 231 (1914).

Indigofera Thirionni Léveillé in Fedde, Rep. Spec. Nov. XII. 190 (1913).—Gagnepain in Lecomte, Not. Syst. III. 117 (1915), pro synonym. *Derris* vel *Millettiae* spec.

CHINA. K w e i c h o u: Ouang-mou, *J. Esquirol*, no. 117, June 1904, "petit arbrisseau, fl. rose" (holotype of *I. Thirionni*; photo. in A. A.).

The specimen consists of flowering branches with all the leaflets and most of the flowers fallen off and some young leaflets and flowers in a pocket and is too meagre for exact determination. Gagnepain in a note on the type specimen refers it doubtfully to *Derris* or perhaps *Millettia*; according to its inflorescence and flowers it seems to be a *Derris*.

Dumasia villosa De Candolle, Mém. Fam. Legum. 257, t. 44 (1825); Prodr. II. 241 (1825).

Erythrina Mairei Léveillé in Bull. Géog. Bot. XXV. 50 (1915); Cat. Pl. Yun-Nan, 155 (1916).—**Synon. nov.**

Apios Mairei Lévl. in herb. Léveillé, l. c. (1915), pro synonym.

CHINA. Y u n n a n: sous bois de Pan-lang-se, alt. 2500 m., *E. E. Maire*, Sept. (1912) "plante grimpante vivace, fl. jaune d'or" (holotype; photo. in A. A.).

Mucuna terrens Léveillé in Fedde, Rep. Spec. Nov. XIII. 264 (May 5, 1914).

Mucuna corvina Gagnepain in Lecomte, Not. Syst. III. 28 (May 24, 1914).—Léveillé, Fl. Kouy-Tchéou, 240 (1914).

CHINA. S o u t h e r n K w e i c h o u: without precise locality, *J. Cavalerie*, no. 2974, April 1908 "grande liane à fleur noire" (ex Léveillé; holotype of *M. terrens*); Gan-chouen, *J. Cavalerie*, nos. 3782, 3785?, May and Dec. 1910 (ex Gagnepain; syntypes of *M. corvina*).

In his Flore du Kouy-Tchéou Léveillé cites his *M. terrens* as a synonym of *M. corvina*, though it has priority by about 10 days over the latter name. I have here united the two names on the authority of Léveillé, since I have seen neither Léveillé's nor Gagnepain's specimens.

Mucuna Bodinieri Léveillé in Bull. Soc. Bot. France, LV. 408 (1908); Fl. Kouy-Tchéou, 240 (1914).

CHINA. K w e i c h o u: dans un bois de pagode, non loin du fleuve Hoa-kiang, *E. Bodinier*, no. 2282, April 21, 1897, "grande liane . . . fleurs naissant seules sur le vieux bois" (syntype; photo. and merotype in A. A.); environs de Hoa-ko-chon, *J. Seguin*, April 6, 1898 (ex Léveillé; syntype).

This species resembles *M. pruriens* DC., but is at once distinguished by its 7–8 cm. long corolla.

Mucuna cochinchinensis (Lour.) A. Chevalier in Bull. Agr. Inst. Sci. Saigon, I. 91 (1919).

Mucuna Martini Léveillé in Bull. Soc. Bot. France, LV. 409 (1908); Fl. Kouy-Tchéou, 240 (1914).—**Synon. nov.**

CHINA. K w e i c h o u: environs de Ou-la-cay (Tchen-lin-tcheou), dans les buissons, *L. Martin* et *E. Bodinier*, no. 1984 "fleurs blanches en grappes" (holotype of *M. Martini*; photo. in A. A.).

This species has not yet been recorded from China, but I have little doubt that *M. Martini* is referable to it; it agrees well in leaf, fruit and flower with specimens distributed by Merrill as *M. cochinchinensis* and as *M. nivea* (Roxb.) Wight & Arn. which is a synonym of the former according to Merrill.

Mucuna Esquirolii Léveillé in Fedde, Rep. Spec. Nov. VII. 231 (1909); Fl. Kouy-Tchéou, 240 (1914).

CHINA. K w e i c h o u: without locality, *J. Esquirol*, no. 885 (holotype; merotype in A. A.).

This species is chiefly characterized by the leaflets being pubescent on both sides, more densely beneath, with accumbent long white hairs, the middle leaflets elliptic-ovate and broadly cuneate at the base, by the rather small flowers with slightly curved keel and long calyx-teeth, the lower one longer than the short about 5 mm. long calyx-tube. Fruit wanting.

Mucuna sempervirens Hemsley in Jour. Linn. Soc. XXIII. 190 (1887).—Léveillé, Fl. Kouy-Tchéou, 240 (1914).

Mucuna Mairei Léveillé in Fedde, Rep. Spec. Nov. XIII. 337 (1914); Cat. Pl. Yun-Nan, 116 (1916).—**Synon. nov.**

CHINA. Y u n n a n: forêt de San-tao-keou, 2450 m., *E. E. Maire*, May, 1913, "fleurs violet-sombre" (holotype of *M. Mairei*; merotype in A. A.).

Pueraria Thunbergiana (Sieb. & Zucc.) Benth in Jour. Linn. Soc. IX. 122 (1867).—Léveillé, Fl. Kouy-Tchéou, 241 (1914); in Mem. Acad. Ci. Art. Barcelona, ser. 3, XII. no. 22, p. 15 (Cat. Pl. Kiang-Sou) (1916).

Pueraria Bodinieri Léveillé & Vaniot in Bull. Soc. Bot. France, LV. 425 (1908); Fl. Kouy-Tchéou, 241 (1914).—**Synon. nov.**

Pueraria Koten Léveillé in Bull. Soc. Bot. France, LV. 426 (1908).—**Synon. nov.**

Pueraria Argyi Léveillé & Vaniot in Bull. Soc. Bot. France, LV. 426 (1908).—Léveillé in Mem. Acad. Ci. Art. Barcelona, ser. 3, XII. no. 22, p. 15 (Cat. Pl. Kiang-Sou) (1916).—**Synon. nov.**

Pueraria coerulea Léveillé & Vaniot in Bull. Soc. Bot. France, LV. 427 (1908).—**Synon. nov.**

CHINA. S h a n t u n g: Chefu, *E. Bodinier*, Sept. 10, 1889 (holotype of *P. Koten*; photo. in A. A.). K i a n g s u: without precise locality, *Ch. d'Argy*, no. 51 [1846-66] (holotype of *P. Argyi*; merotype in A. A.). K w a n g t u n g: Hongkong: baie de Chay-ouan, *E. Bodinier*, no. 1358, Oct. 17, 18 (holotype of *P. coerulea*; merotype in A. A.). K w e i c h o u: environs de Kouy-yang, mont du Collège, dans les rocailles, les herbes, les haies, *E. Bodinier*, no. 2489, Sept. 9, 1898 (holotype of *P. Bodinieri*, photo. in A. A.).

All four species described as new by Léveillé seem to be slight variations of the widely distributed *P. Thunbergiana*; the specimen of *P. Koten* looks rather distinct on account of its smaller three-lobed leaflets.

Dunbaria pulchra Benth in Hooker, Fl. Brit. Ind. II. 218 (1879).—Léveillé, Cat. Pl. Yun-Nan, 154 (1916); China Rev. Ann. 1916, p. 21.

Pueraria Seguini Léveillé in Bull. Soc. Bot. France, LV. 426 (1908); Fl. Kouy-Tchéou, 241 (1914).

CHINA. K w e i c h o u: environs de Hoang-ko-chou, *J. Seguin*, no. 2446, July 10, 1898, "liane herbacée trainant sur les rochers (Siao-ko-ten), fleurs jaunes" (holotype of *P. Seguini*; photo. in A. A.).

Pueraria Seguini was referred to *Dunbaria pulchra* as a synonym by Léveillé himself in 1916.

(To be continued.)

HERBARIUM, ARNOLD ARBORETUM
HARVARD UNIVERSITY